REAL ESTATE ANALYSTS INC.

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DECEMBER 30
1942

Roy Wenzlick
Editor

A concise easily digested periodic analysis based upon scientific research in real estate fundamentals and trends...Constantly measuring and reporting the basic economic factors responsible for changes in trends and values.....Current Studies.....Surveys.....Forecasts

VOLUME XI

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REAL ESTATE ECONOMISTS, APPRAISERS AND COUNSELORS

DEFENSE MIGRATIONS AND MORTGAGE SAFETY

IN the November Real Estate Analyst a map showed civilian migrations by states from April 1, 1940 to May 1, 1942. Some states, particularly New York, Pennsylvania, Minnesota, and Oklahoma, had lost very heavily, while other states, such as Michigan, California, Virginia, and Illinois, had received very heavy population gains. The tables following give the same type of information for 137 metropolitan counties or groups of counties.

Everyone interested in either real estate or mortgages should study these tables and their implication. Remember that the value of real estate depends on the demand for it in relationship to its supply. If these figures show a large gain in population in a certain community in the last two years, it means that in all probability a real strain has been put on the housing and many other facilities of that city. On the other hand, in a community which has lost population residential vacancy has increased, the demand for housing exceeds the supply, and rents are either just holding their own or drifting downward as landlords bid against each other for the tenants available.

From the standpoint of real estate and mortgages the permanency of these shifts in population is all-important, and this permanency depends in a large measure on the length of the war. If it is necessary for these migrants to live in their new homes for several years, a large percentage of them will stay after the war. The wife of an executive transferred from New York to St. Louis several years ago cried all the way out on the train. This executive has just been transferred back to New York, and his wife cried all the way back. Of course there are some communities where it will be impossible to provide sufficient work after the war to maintain a civilian population of the size now occupied on war work, and these communities will shrink, but probably not to their pre-war size.

Eighty-eight of the 137 metropolitan counties or groups of counties have shown a gain in civilian population between April 1, 1940 and May 1, 1942. Six showed no appreciable change, and 43 showed a decline. For those counties in which the civilian population increased the total gain amounted to 2,639,-000, or 6.8% of their 1940 civilian population. The net increase in civilians for all metropolitan counties was 1,853,000, or 2.8%. These counties include slightly more than half the entire civilian population of the United States. The largest gains in the United States have centered in the following cities: Detroit, with a gain of 336,000; Washington, D. C., with 231,000; Chicago, with 149,000; Los Angeles, with 131,000; Norfolk, Portsmouth and Newport News, with 107,000; St. Louis, with 97,000; San Diego, with 97,000; and San Francisco and Oakland, with 95,000. The largest loss, 365,000, occurred in the New York-Northeastern New Jersey metropolitan counties.

PRELIMINARY ESTIMATES OF THE CIVILIAN POPULATION OF SELECTED METROPOLITAN COUNTIES: MAY 1, 1942, WITH COMPARATIVE FIGURES FOR APRIL 1, 1940

Metropolitan district and counties	Estimated civilian population May 1, 1942	Total population April 1, 1940	Estimated civilian population April 1, 1940	Estimated increase in the civilian population between April 1, 1940 and May 1, 1942	
				Number	Percent
TOTAL (137 areas)	68,228,000	66,569,734	66,375,000	1,853,000	2.8
Akron (Summit Co., Ohio)	358,000	339,405	339,000	19,000	5.6
Albany-Schenectady-Troy (Albany, Rensselaer, and Schenectady Cos., N. Y.)	464,000	465,643	466,000	-2,000	-0.4
Allentown-Bethlehem-Easton (Lehigh and Northampton Cos., Pa.)	355,000	346,492	346,000	9,000	2.6
Altoona (Blair Co., Pa.)	133,000	140,358	140,000	-7,000	-5.0
Amarillo (Potter Co., Tex.)	51,000	54,265	54,000	-3,000	-5.6
Asheville (Buncombe Co., N. C.)	101,000	108,755	109,000	-8,000	-7.3
Atlanta (De Kalb and Fulton Cos., Ga.)	503,000	479,828	478,000	25,000	5.2
Atlantic City (Atlantic Co., N. J.)	116,000	124,066	124,000	-8,000	-6.5
Augusta (Richmond Co., Ga.)	89,000	81,863	82,000	7,000	8.5
Austin (Travis Co., Tex.)	117,000	111,053	111,000	6,000	5.4
Baltimore (Baltimore City, Anne Arundel and Baltimore Cos., Md.)	1,126,000	1,083,300	1,073,000	53,000	4.9
Beaumont-Port Arthur (Jefferson Co., Tex.)	160,000	145,329	145,000	15,000	10.3
Binghamton (Broome Co., N. Y.)	160,000	165,749	166,000	-6,000	-3.6
Birmingham (Jefferson Co., Ala.)	502,000	459,930	460,000	42,000	9.1
Boston (Essex, Middlesex, Norfolk, Plymouth, and Suffolk Cos., Mass.)	2,811,000	2,824,955	2,821,000	-10,000	-0.4
Bridgeport (Fairfield Co., Conn.)	449,000	418,384	418,000	31,000	7.4
Buffalo-Niagara (Erie and Niagara Cos., N..Y.)	970,000	958,487	958,000	12,000	1.3
Canton (Stark Co., Ohio)	252,000	234,887	235,000	17,000	7.2
Cedar Rapids (Linn Co., Iowa)	90,000	89,142	89,000	1,000	1.1
Charleston, S. C. (Charleston Co., S. C.)	147,000	121,105	118,000	29,000	24.6
Charleston, W. Va. (Kanawha Co., W. Va.)	192,000	195,619	196,000	-4,000	-2.0
Charlotte (Meckleburg Co., N. C.)	149,000	151,826	152,000	-3,000	-2.0
Chattanooga (Hamilton Co., Tenn.; Walker Co., Ga.)	229,000	211,502	211,000	18,000	8.5
Chicago (Cook, Du Page, and Lake Cos., Ill.; Lake Co., Ind.)	4,725,000	4,581,111	4,576,000	149,000	3.3
Cincinnati (Hamilton Co., Ohio; Dearborn Co., Ind.; Campbell and Kenton Cos., Ky.)	861,000	810,097	810,000	51,000	6.3
Cleveland (Cuyahoga Co., Ohio)	1,231,000	1,217,250	1,217,000	14,000	1.2
Columbia (Richland Co., S. C.)	122,000	104,843	105,000	17,000	16.2
Columbus, Ga. (Muscogee Co., Ga.; Russell Co., Ala.)	123,000	111,269	111,000	12,000	10.8
Columbus, Ohio (Franklin Co., Ohio)	409,000	388,712	388,000	21,000	5.4
Corpus Christi (Nueces Co., Tex.)	119,000	92,661	93,000	26,000	28.0
Dallas (Dallas Co., Tex.)	431,000	398,564	398,000	33,000	8.3
Davenport (Iowa), Rock Island-Moline (Ill.),(Scott Co., Iowa; Rock Island Co., Ill.)	211,000	198,071	198,000	13,000	6.6
Dayton (Montgomery Co., Ohio)	325,000	295,480	295,000	30,000	10.2
Decatur (Macon Co., Ill.)	88,000	84,693	85,000	3,000	3.5
Denver (Arapahoe, Denver, and Jefferson Cos., Colo.)	398,000	385,287	382,000	16,000	4.2
Des Moines (Polk Co., Iowa)	197,000	195,835	195,000	2,000	1.0
Detroit (Macomb, Oakland, and Wayne Cos., Mich.)	2,710,000	2,377,329	2,374,000	336,000	14.2
Duluth (Minn.), Superior (Wis.), (St. Louis Co., Minn.; Douglas Co., Wisc)	240,000	254,036	254,000	-14,000	-5.5
Durham (Durham Co., N. C.)	82,000	80,244	80,000	2,000	2.5
El Paso (El Paso Co., Tex.)	136,000	131,067	126,000	10,000	7.9
Erie (Erie Co., Pa.)	185,000	180,889	181,000	4,000	2.2
Evansville (Vanderburgh Co., Ind.; Henderson Co., Ky.)	168,000	157,803	158,000	10,000	6.3
Fall River-New Bedford (Bristol Co., Mass.)	364,000	364,637	365,000	-1,000	-0.3
Flint (Genesee Co., Mich.)	227,000	227,944	228,000	-1,000	-0.4
Fort Wayne (Allen Co., Ind.)	165,000	155,084	155,000	10,000	6.5
Fort Worth (Tarrant Co., Tex.)	236,000	225,521	226,000	10,000	4.4
Fresno (Fresno Co., Calif.)	179,000	178,565	179,000	-	-
Galveston (Galveston Co., Tex.)	88,000	81,173	80,000	8,000	10.0
Grand Rapids (Kent Co., Mich.)	246,000	246,338	246,000	-	-
Hamilton-Middletown (Butler Co., Ohio)	127,000	120,249	120,000	7,000	5.8
Harrisburg (Dauphin Co., Pa.)	182,000	177,410	177,000	5,000	2.8
Hartford-New Britain (Hartford and Middlesex Cos., Conn.)	557,000	506,188	506,000	51,000	10.1
Houston (Harris Co., Tex.)	555,000	528,961	529,000	26,000	4.9
Huntington (W. Va.)-Ashland (Ky.) (Cabell Co., W. Va.; Boyd Co., Ky.; Lawrence Col, Ohio)	186,000	190,102	190,000	-4,000	2.1
Indianapolis (Marion Co., Ind.)	492,000	460,926	458,000	34,000	7.4
Jackson (Hinds Co., Miss.)	116,000	107,273	107,000	9,000	8.4
Jacksonville (Duval Co., Fla.)	258,000	210,143	210,000	48,000	22.9
Johnstown (Cambria Co., Pa.)	238,000	213,459	213,000	25,000	11.7
Kalamazoo (Kalamazoo Co., Mich.)	105,000	100,085	100,000	5,000	5.0
Kansas City (Mo.)-Kansas City (Kans.)(Jackson Co., Mo.; Johnson and Wyandotte Cos., Kans.)	664,000	656,226	656,000	8,000	1.2
Knoxville (Knox Co., Tenn.)	187,000	178,468	178,000	9,000	5.1
Lancaster (Lancaster Co., Pa.)	209,000	212,504	213,000	-4,000	-1.9
Lansing (Ingham Co., Mich.)	129,000	130,616	131,000	-2,000	-1.5
Lincoln (Lancaster Co., Nebr.)	98,000	100,585	101,000	-3,000	-3.0
Little Rock (Pulaski Co., Ark.)	176,000	156,085	156,000	20,000	12.8
Los Angeles (Los Angeles and Orange Cos., Calif.)	3,045,000	2,916,403	2,914,000	131,000	4.5

(A minus sign (-) denotes decrease. Percent not shown where less than 0.1)

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Metropolitan district and counties	Estimated civilian population May 1, 1942	Total population April 1, 1940	Estimated civilian population April 1, 1940	Estimated increase in the civilian population between April 1, 1940 and May 1, 1942	
				Number	Percent
Louisville (Jefferson Co., Ky.; Clark and Floyd Cos., Ind.)	498,000	451,473	451,000	47,000	10.4
Macon (Bibb Co., Ga.)	92,000	83,783	84,000	8,000	9.5
Madison Dane Co., Wix.)	135,000	130,660	131,000	4,000	3.1
Manchester (Hillsborough Co., N. H.)	138,000	144,888	145,000	- 7,000	-4.8
Memphis (Shelby Co., Tenn.)	361,000	358,250	358,000	3,000	0.8
Miami (Dade Co., Fla.)	265,000	267,739	268,000	-3,000	-1.1
Milwaukee (Milwaukee Co., Wis.)	766,000	766,885	767,000	-1,000	-0.1
Minneapolis-St. Paul (Anoka, Hennepin, Ramsey, and Washington Cos., Minn.)	915,000	927,707	924,000	-9,000	-1.0
Mobile (Mobile Co., Ala.)	189,000	141,974	142,000	47,000	33.1
Montgomery (Montgomery Co., Ala.)	144,000	114,420	111,000	33,000	29.7
Nashville (Davidson Co., Tenn.)	274,000	257,267	257,000	17,000	6.6
New Haven (New Haven,Co., Conn.)	520,000	484,316	484,000	36,000	7.4
New Orleans (Jefferson and Orleans Parishes, La.)	574,000	544,964	545,000	29,000	5.3
New York-Northeastern New Jersey (Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, and Westchester Cos., N. Y.; Bergen, Essex, Hudson, Middlesex, Monmouth, Morris, Passaic, and Union Cos., N. J.)	10,752,000	11,143,584	11,117,000	-365,000	-3.3
Norfolk-Portsmouth-Newport News(Hampton, Newport News, Norfolk, Portsmouth, and South Norfolk cities; and Elizabeth City, Norfolk, Princess Anne, and Warwick Cos., Va.)	429,000	343,423	322,000	107,000	33.2
Oklahoma City (Oklahoma Co., Okla.)	217,000	244,159	244,000	-27,000	-11.1
Omaha (Nebr.)-Council Bluffs (Iowa)(Douglas Co., Nebr.; Pottawattamie Co., Iowa)	318,000	314,318	313,000	5,000	1.6
Peoria (Peoria and Tazewell Cox., Ill.)	202,000	211,736	212,000	-10,000	-4.7
Philadelphia (Delaware, Montgomery, and Philadelphia Cos., Pa; Burlington, Camden, and Gloucester Cos., N. J.)	3,027,000	2,956,296	2,953,000	74,000	2.5
Phoenix (Maricopa Co., Ariz.)	186,000	186,193	186,000	-	-
Pittsburgh (Allegheny, Fayette, Washington, and Westmoreland Cos., Pa.)	2,068,000	2,126,801	2,127,000	-59,000	-2.8
Portland, Maine (Cumberland Co., Maine)	151,000	146,000	144,000	7,000	4.9
Portland, Oreg. (Clackamas and Multnomah Cos., Oreg.)	425,000	412,229	412,000	13,000	3.2
Providence (Bristol, Kent, Newport and Providence Cos., R. I.)	688,000	680,853	677,000	11,000	1.6
Pueblo (Pueblo Co., Colo.)	74,000	68,870	69,000	5,000	7.2
Racine-Kenosha (Kenosha and Racine Cos., Wis.)	155,000	157,552	157,000	-2,000	-1.3
Reading (Berks Co., Pa.)	234,000	241,884	242,000	-8,000	-3.3
Richmond (Richmond City, Henrico Co., Va.)	245,000	235,002	235,000	10,000	4.3
Roanoke (Roanoke City, Roanoke Co., Va.)	110,000	112,184	112,000	-2,000	-1.8
Rochester (Monroe Co., N. Y.)	423,000	438,230	438,000	-15,000	-3.4
Rockford (Winnebago Co., Ill.)	131,000	121,178	121,000	10,000	8.3
Sacramento (Sacramento Co., Calif.)	177,000	170,333	170,000	7,000	4.1
Saginaw-Bay City (Bay and Saginaw Cos., Mich.)	204,000	205,449	205,000	-1,000	-0.5
St. Joseph (Buchanan Co., Mo.)	83,000	94,067	94,000	-11,000	-11.7
St. Louis (St. Louis City, St. Charles and St. Louis Cos., Mo; Madison and St. Clair Cos., Ill.)	1,527,000	1,432,088	1,430,000	97,000	6.8
Salt Lake City (Salt Lake Co., Utah)	220,000	211,623	211,000	9,000	4.3
San Antonio (Bexar Co., Tex.)	354,000	338,176	316,000	38,000	12.0
San Diego (San Diego Co., Calif.)	373,000	289,348	276,000	97,000	35.1
San Francisco-Oakland (Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Solano Cos., Calif.)	1,542,000	1,461,804	1,447,000	95,000	6.6
San Jose (Santa Clara Co., Calif.)	173,000	174,949	172,000	1,000	0.6
Savannah (Chathan Co., Ga.)	127,000	117,970	117,000	10,000	8.5
Scranton--Wilkes-Barre (Lackawanna and Luzerne Cos., Pa.)	664,000	742,761	743,000	-79,000	-10.6
Seattle (King Co., Wash.)	549,000	504,980	503,000	46,000	9.1
Shreveport (Caddo Parish, La.)	157,000	150,203	150,000	7,000	4.7
Sioux City (Woodbury Co., Iowa)	97,000	103,627	104,000	-7,000	-6.7
South Bend (St. Joseph Co., Ind.)	167,000	161,823	162,000	5,000	3.1
Spokane (Spokane Co., Wash.)	156,000	164,652	163,000	-7,000	-4.3
Springfield, Ill. (Sangamon Co., Ill.)	116,000	117,912	118,000	-2,000	-1.7
Springfield, Mo. (Greene Co., Mo.)	91,000	90,541	91,000	-	-
Springfield, Ohio (Clark Co., Ohio)	100,000	95,647	96,000	4,000	4.2
Springfield-Holyoke, Mass. (Hampden and Hampshire Cos., Mass.)	405,000	404,568	405,000	-	-
Stockton (San Joaquin Co., Calif.)	131,000	134,207	134,000	-3,000	-2.2
Syracuse (Onondaga Co., N. Y.)	288,000	295,108	295,000	-7,000	-2.4
Tacoma (Pierce Co., Wash.)	183,000	182,081	173,000	10,000	5.8
Tampa-St. Petersburg (Hillsborough and Pinellas Cos., Fla.)	273,000	272,000	272,000	1,000	0.4
Terre Haute (Vigo Co., Ind.)	100,000	99,709	100,000	-	-
Toledo (Lucas Co, Ohio)	332,000	344,333	344,000	-12,000	-3.5
Topeka (Shawnee Co., Kans.)	80,000	91,247	91,000	-11,000	-12.1
Trenton (Mercer Co., N. J.)	202,000	197,318	197,000	5,000	2.5
Tulsa (Tulsa Co., Okla.)	211,000	193,363	193,000	18,000	9.3
Utica-Rome (Herkimer and Oneida Cos., N. Y.)	241,000	263,163	263,000	-22,000	-8.4
Waco (McLennan Co., Tex.)	109,000	101,898	102,000	7,000	6.9
Washington,D. C. (District of Columbia; Montgomery and Prince Georges Cos., Md.; Alexandria city and Arlington Co., Va.)	1,151,000	927,056	920,000	231,000	25.1
Waterloo (Black Hawk Co., Iowa)	81,000	79,946	80,000	1,000	1.3

(A minus sign (-) denotes decrease. Percent not shown where less than 0.1)

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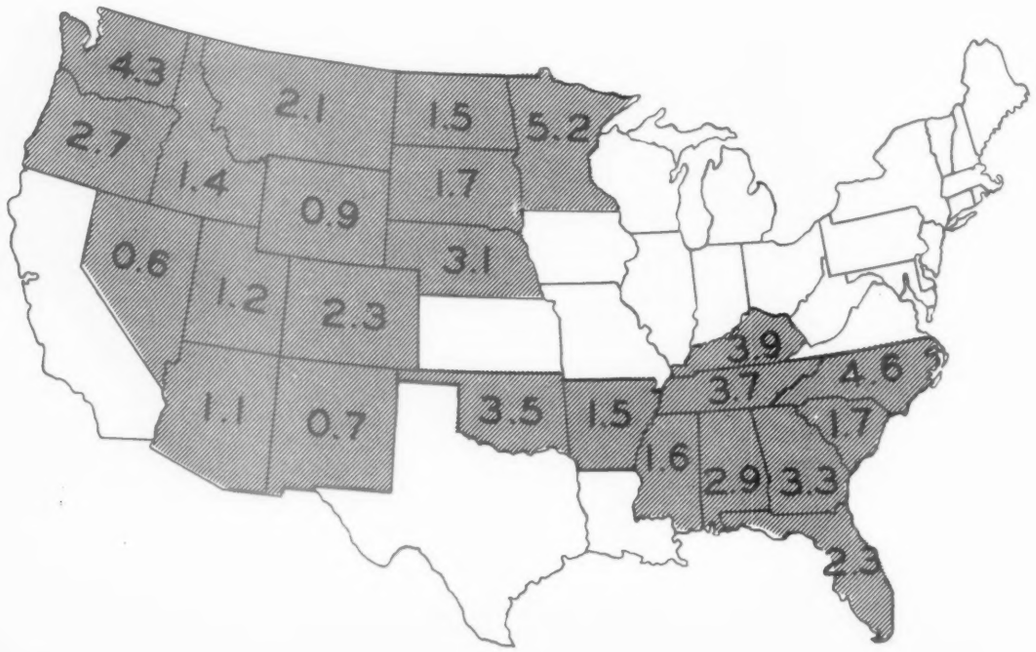
Metropolitan district and counties	Estimated civilian population May 1, 1942	Total population April 1, 1940	Estimated civilian population April 1, 1940	Estimated increase in the civilian population between April 1, 1940 and May 1, 1942	
				Number	Percent
Wheeling (Brooke, Marshall, and Ohio Cos., W. Va.; Belmont Co., Ohio)	223,000	234,431	234,000	-11,000	-4.7
Wichita (Sedgewick Co., Kans.)	178,000	143,311	143,000	35,000	24.5
Wilmington (New Castle Co., Del.)	186,000	179,562	178,000	8,000	4.5
Winston-Salem (Forsyth Co., N. C.)	118,000	126,475	126,000	-8,000	-6.3
Worcester (Worcester Co., Mass.)	494,000	504,470	503,000	-9,000	-1.8
York (York,Co., Pa.)	180,000	178,022	178,000	2,000	1.1
Youngstown (Mahoning and Trumbull Cos., Ohio)	365,000	372,566	373,000	-8,000	-2.1

(A minus sign (-) denotes decrease. Percent not shown where less than 0.1)

WAR EXPENDITURES AND NATIONAL DEBT

The map below expresses our war expenditures to date in terms of national wealth in 1937, the last year for which national wealth figures by states has been computed. Our war expenditures to December 1, 1942 are equal to the total wealth of the shaded states.



RESIDENTIAL BUILDING COSTS IN 80 CITIES

WITHIN a month after the beginning of the present war in Europe, Real Estate Analysts, Inc., went definitely on record in its reports that construction costs would move sideways for a period of from six months to a year and then would start sharply upward. In addition to appearing again and again in our reports, this statement appeared in "Should We Build Our Home Now?" - a booklet sent to our subscribers, and in a number of magazine articles by Roy Wenzlick appearing in leading national magazines. A glance at the charts on pages 372 - 375 in this report, showing construction costs of the same residential building in eighty cities, will show the accuracy of these forecasts. In August 1940, after having gone sideways for almost a year, construction costs started rising rapidly.

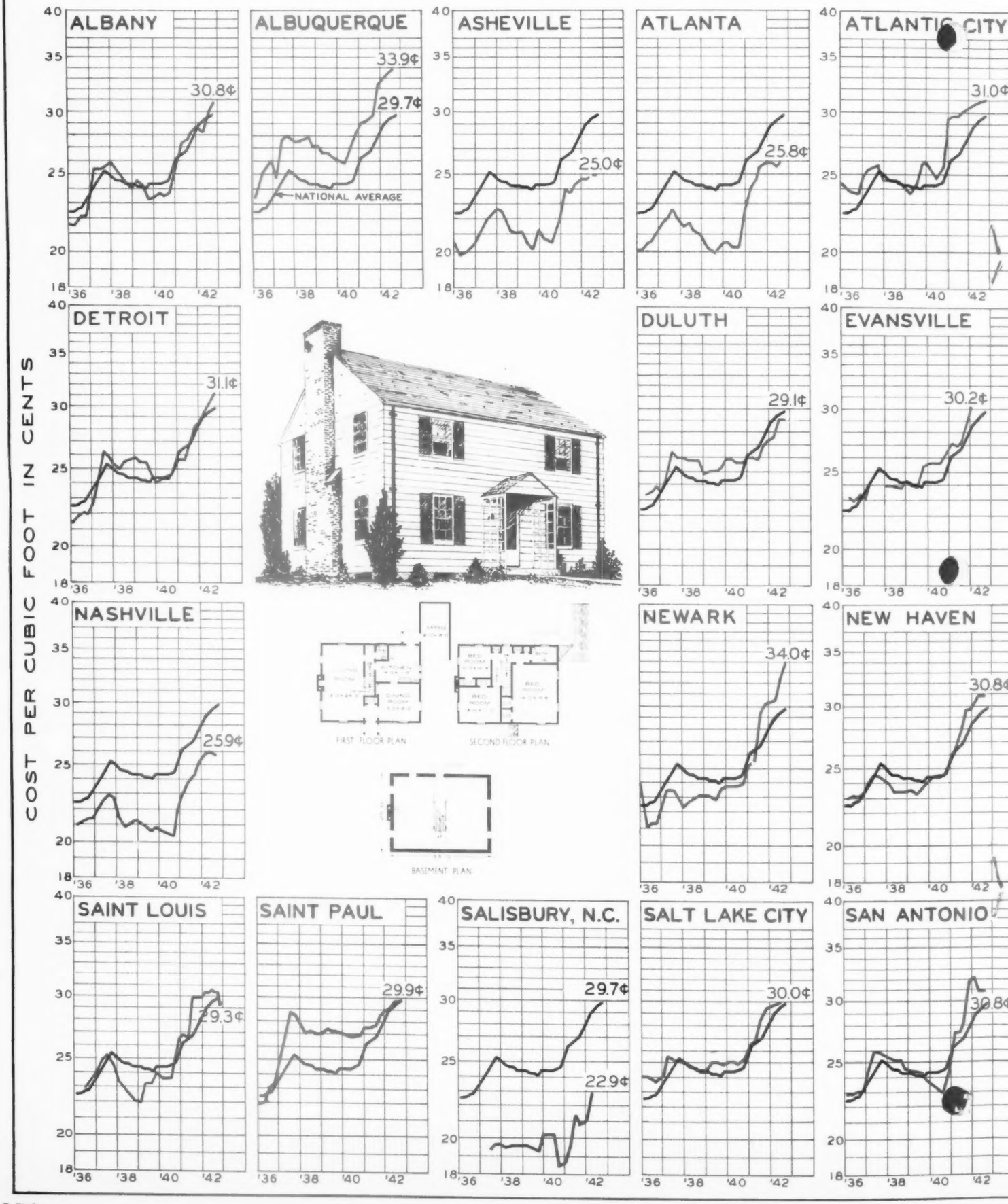
The figures we have charted on this spread are based on costs compiled by the Federal Home Loan Bank Administration and by Real Estate Analysts, Inc. A house that fits the specifications used in each city is pictured on the spread. Cost figures on the construction cost of this house built in St. Louis are available for thirty years.

The house pictured is a six-room frame dwelling. The design is simple and efficient. The interior arrangement can be considered fair, and the construction is average in quality. The plans and specifications call for concrete foundations, concrete basement and garage floors; concrete slabs for front and rear stoops; frame exterior walls with 3/4" x 10" redwood siding, with stucco gable ends; three coat plaster walls; oak flooring; pine B & B trim; 1 3/8" six panel #1 pine doors; tile wainscot and floors in bathroom and lavatory; two kitchen cabinets; 266 lbs. asphalt shingle roof with copper gutters and downspouts; modern bathroom fixtures; hot water heat; modern electrical installation; insulation in exterior walls and second floor ceiling. The house is not completed ready for occupancy; it includes all fundamental structural elements, an attached one-car garage, an unfinished cellar and an unfinished attic. It does not include wall-paper nor other wall nor ceiling finish on interior plastered surfaces, lighting fixtures, refrigerators, water heaters, ranges, screens, weather stripping, nor window shades. The cost of the land is not included nor surveying the land, the cost of planting the lot nor of providing walks and driveways. The architect's fee is not included, nor is the cost of a building permit, the financing charges, or the sales cost.

In the thirty years for which these figures are available for the St. Louis house many changes have necessarily been made in the specifications from time to time. Copper guttering, downspouts and flashing have been in and out several times because of the first and second World Wars. Whenever any material was unavailable the best substitute obtainable was figured.

It should be pointed out that the house pictured would probably not be of an acceptable type for actual construction in all of the cities listed. The specifications have been held the same, however, in all cities, as it is the only way in which a comparison can be made between the various communities. This is true even to the inclusion of a furnace in the building in Tampa.

As an indication of actual building costs certain deductions must be made in southern cities. The primary purpose of this series is to show the relative fluctuations in the various cities since 1936.


COST PER CUBIC FOOT IN CENTS
ALBANY
30.8¢
ALBUQUERQUE
33.9¢
29.7¢
NATIONAL AVERAGE
ASHEVILLE
25.0¢
ATLANTA
25.8¢
ATLANTIC CITY
31.0¢
DETROIT
31.1¢
DULUTH
29.1¢
EVANSVILLE
30.2¢
NASHVILLE
25.9¢
FIRST FLOOR PLAN
SECOND FLOOR PLAN
BASEMENT PLAN
NEWARK
34.0¢
NEW HAVEN
30.8¢
SAINT LOUIS
29.3¢
SAINT PAUL
29.9¢
SALISBURY, N.C.
29.7¢
22.9¢
SALT LAKE CITY
30.0¢
SAN ANTONIO
30.8¢
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FLUCTUATIONS IN CONSTRUCTION COS

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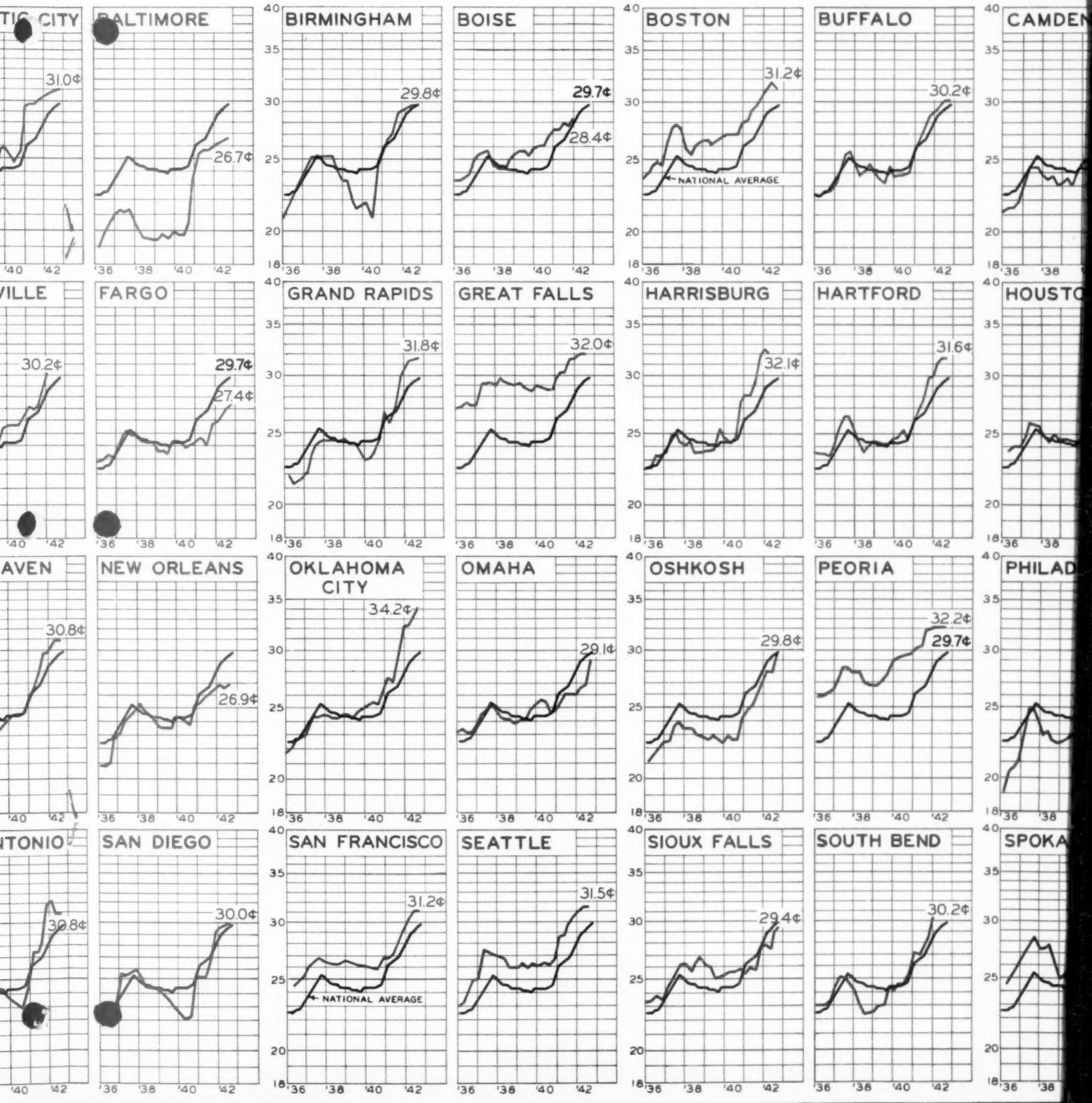
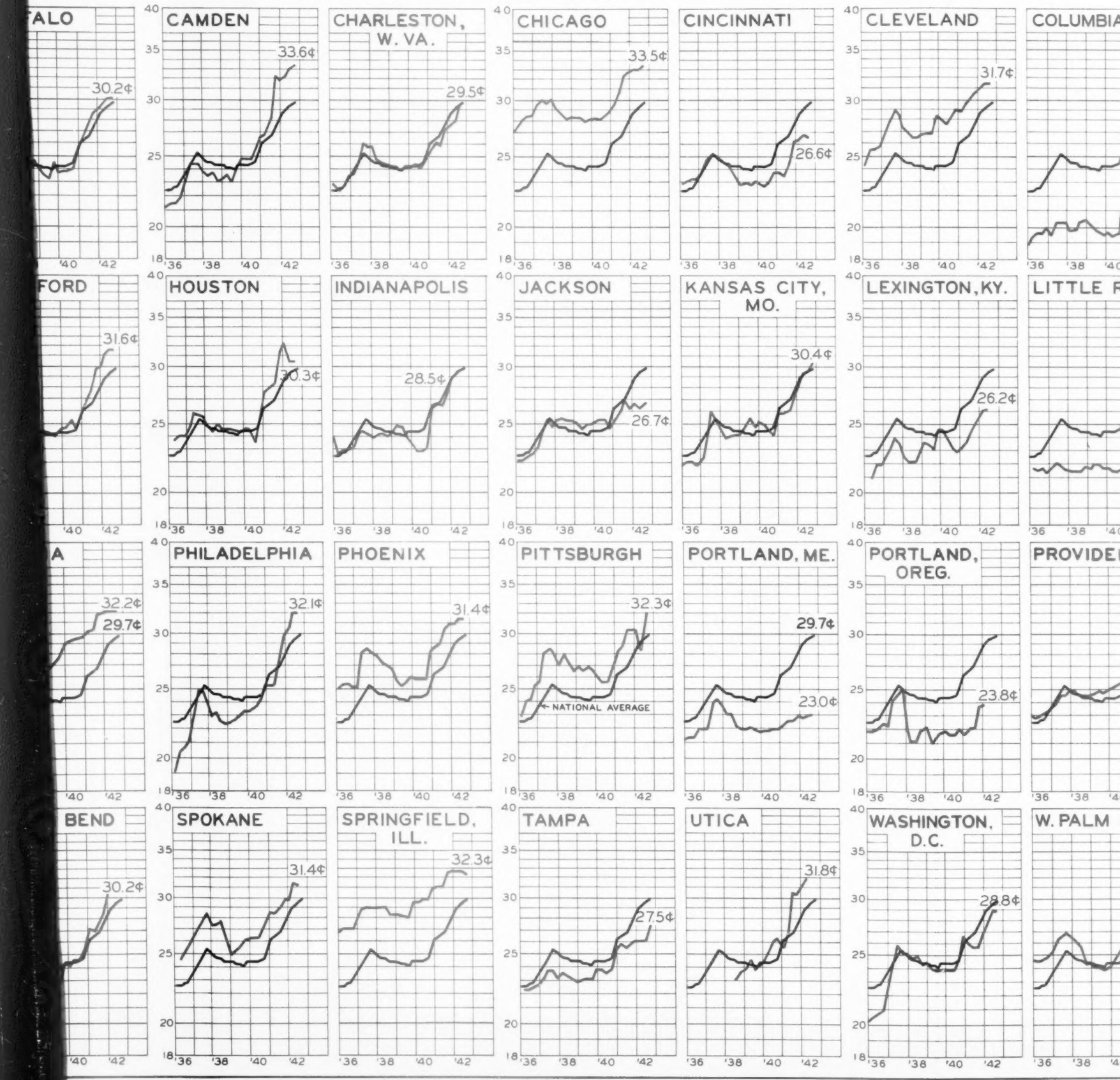
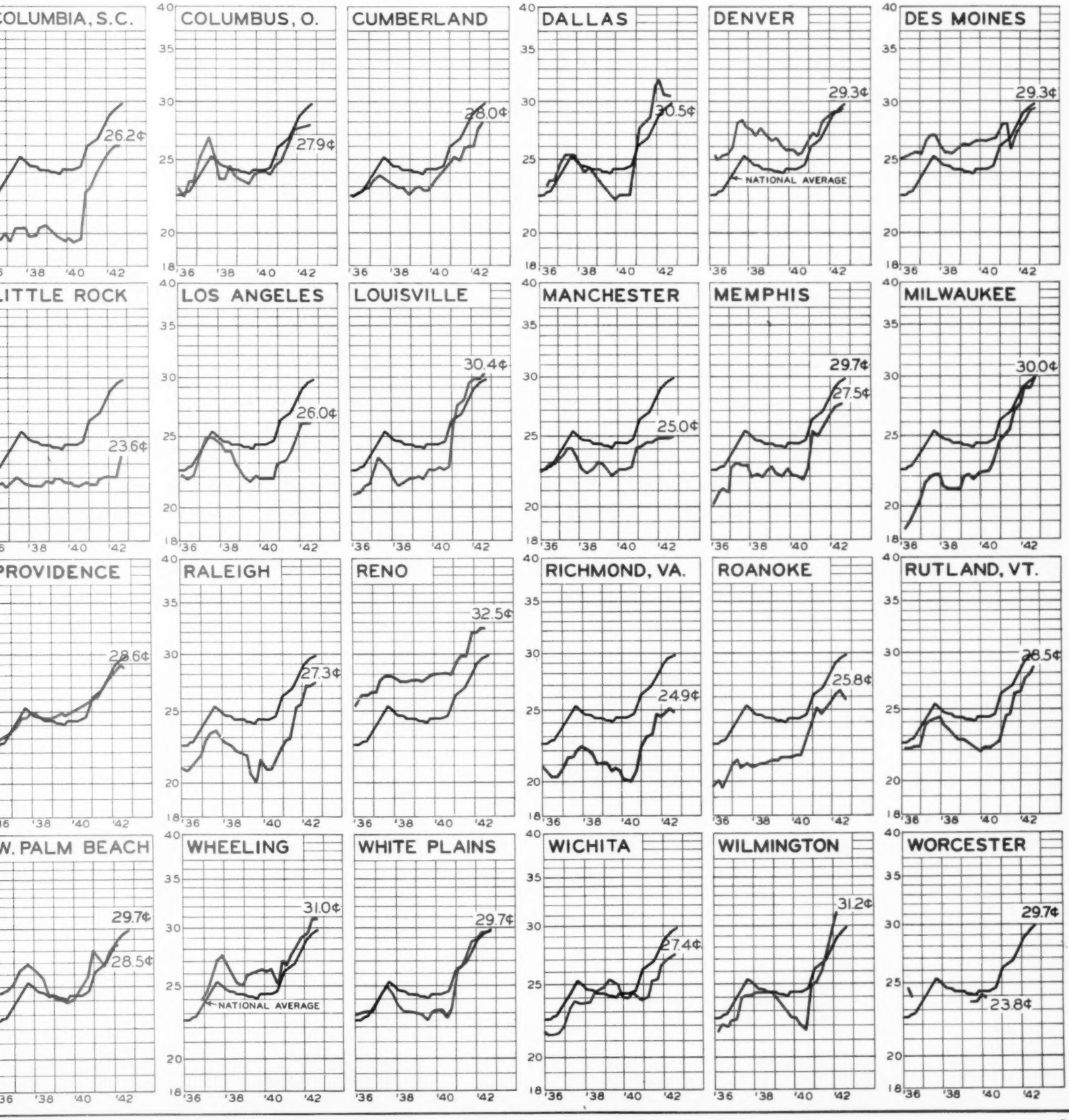


TION COSTS PER CUBIC FOOT IN 80 CITIES

ESTATE ANALYSTS, INC. SAINT LOUIS




COLUMBIA, S.C.
26.2¢
COLUMBUS, O.
27.9¢
CUMBERLAND
28.0¢
DALLAS
30.5¢
DENVER
29.3¢
NATIONAL AVERAGE
DES MOINES
29.3¢
LITTLE ROCK
23.6¢
LOS ANGELES
26.0¢
LOUISVILLE
30.4¢
MANCHESTER
25.0¢
MEMPHIS
29.7¢
27.5¢
MILWAUKEE
30.0¢
PROVIDENCE
28.6¢
RALEIGH
27.3¢
RENO
32.5¢
RICHMOND, VA.
24.9¢
ROANOKE
25.8¢
RUTLAND, VT.
28.5¢
W. PALM BEACH
29.7¢
28.5¢
WHEELING
31.0¢
NATIONAL AVERAGE
WHITE PLAINS
29.7¢
WICHITA
27.4¢
WILMINGTON
31.2¢
WORCESTER
29.7¢
23.8¢
40
35
30
25
20
18
'36
'38
'40
'42

GOVERNMENT EXPENDITURES FROM 1910

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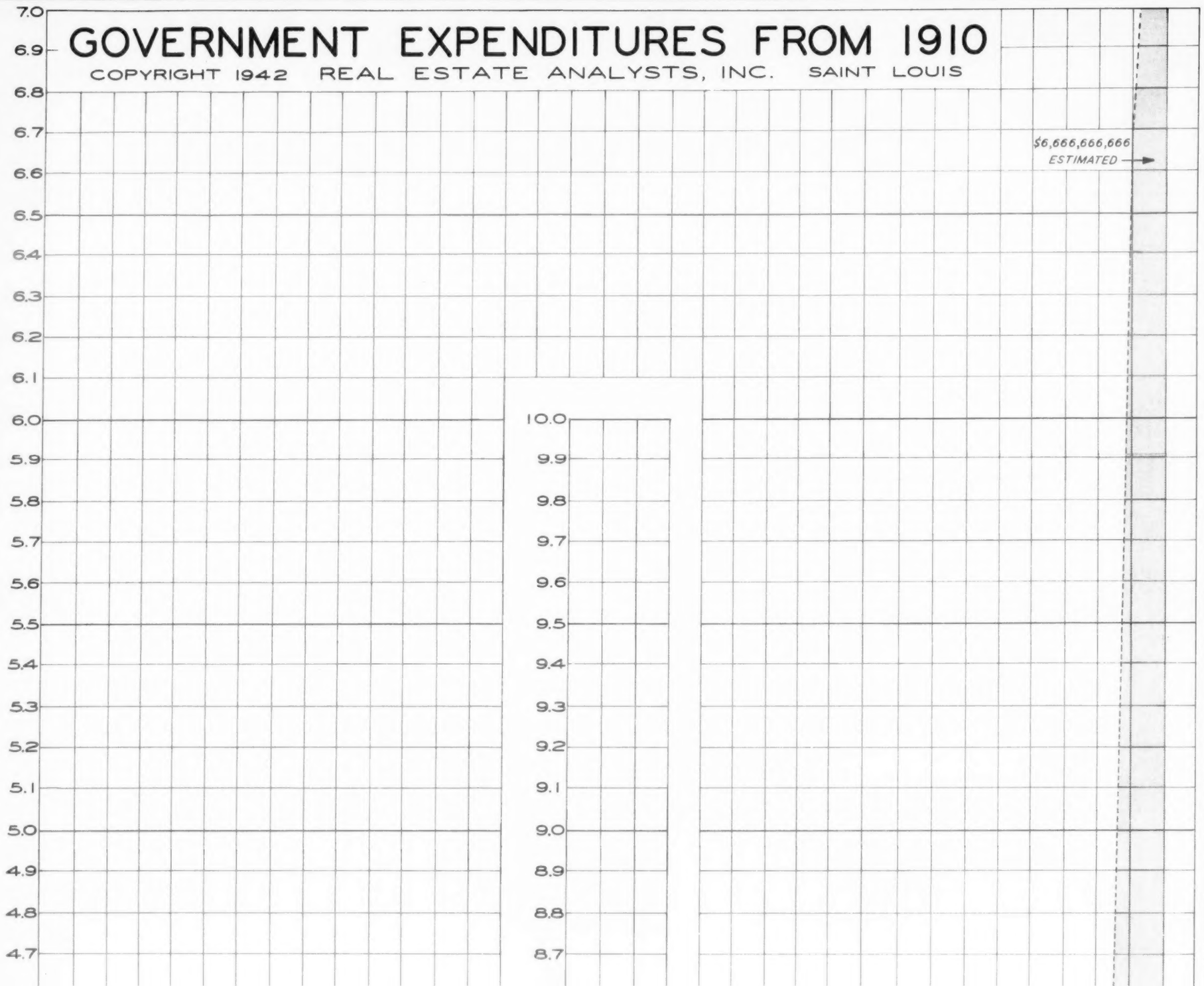
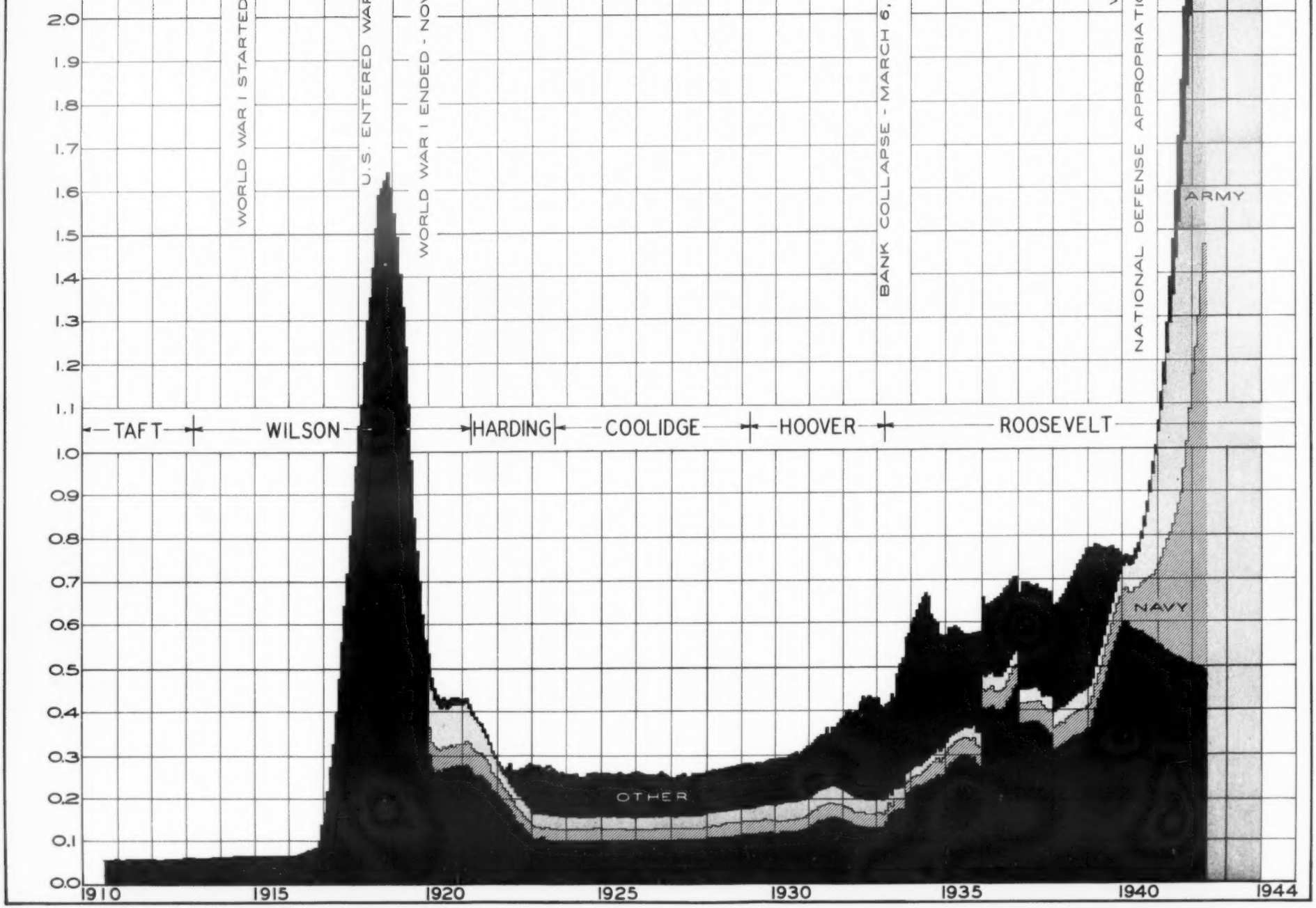


BILLIONS OF DOLLARS
WORLD WAR I
WORLD WAR II
ESTIMATED
$ 8,333,333,333
'42 '43 '44
U. S. ENTERED WAR - DECEMBER 8, 1941
LEASE-LEND ACT - MARCH 11, 1941
SELECTIVE SERVICE & TRAINING ACT - SEPTEMBER 16, 1940
WAR II STARTED - SEPTEMBER 3, 1939
CT - JUNE 26, 1940
ER 11, 1918
RIL 6, 1917
UST 1, 1914

BILLIONS OF DOLLARS
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
WORLD WAR I
STARTED - AUGUST 1, 1914
ERED WAR - APRIL 6, 1917
DED - NOVEMBER 11, 1918
MARCH 6, 1933
WORLD WAR II STARTED - SEPTEMBER 3, 1939
ROPRIATION ACT - JUNE 26, 1940
SELECTIVE SERVICE & TRAINING ACT - SEPTEMBER 16, 1940
LEASE-LEND ACT - MARCH 11, 1941
U.S. ENTERED WAR - DECEMBER 8, 1941
WORLD WAR II
8.0
7.9
7.8
7.7
7.6
7.5
7.4
7.3
7.2
7.1
7.0
6.9
6.8
6.7
6.6
6.5
'42 '43 '44
ESTIMATED


2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
WORLD WAR I STARTED
U.S. ENTERED WAR
WORLD WAR I ENDED - NOV
BANK COLLAPSE - MARCH 6,
NATIONAL DEFENSE APPROPRIATIO
ARMY
NAVY
OTHER
TAFT
WILSON
HARDING
COOLIDGE
HOOVER
ROOSEVELT
1910
1915
1920
1925
1930
1935
1940
1944

INFLATION!

THE resignation of Mr. Henderson as head of the Price Administration is not due to mistakes he has made, although he has made many. It is not due to his lack of finesse as a politician, nor is it due, if all accounts are correct, to the state of his health. It is due primarily to the fact that the pressure against our price ceilings has gotten to the point where no individual, regardless of his determination, can succeed in withstanding its force for long.

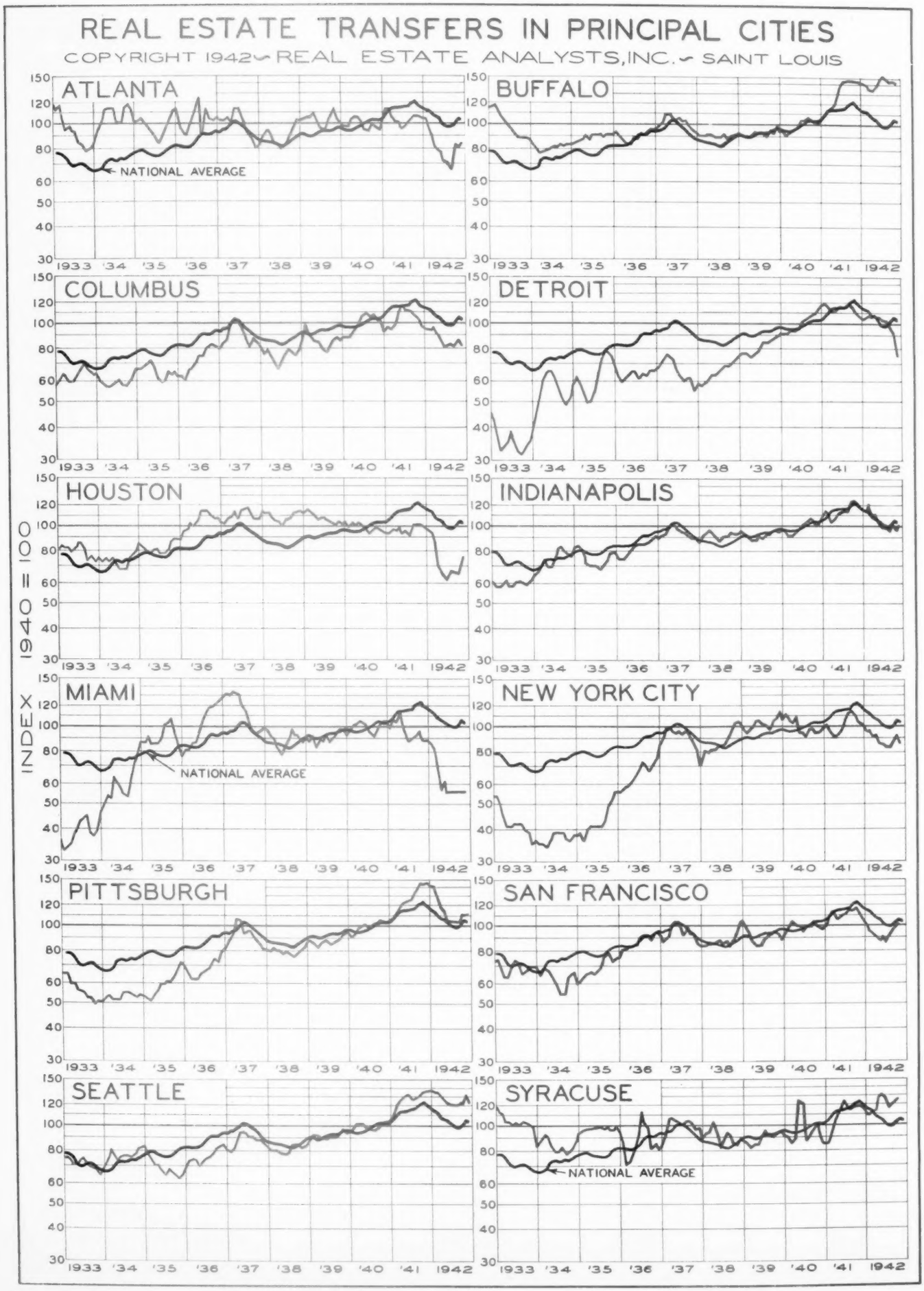
In order to show the tremendous pressure carrying us toward inflation we have charted on the pages opposite the actual Government expenditures from 1910 to the present. On this chart the relatively insignificant cost of the first World War in comparison with the present war is quite striking.

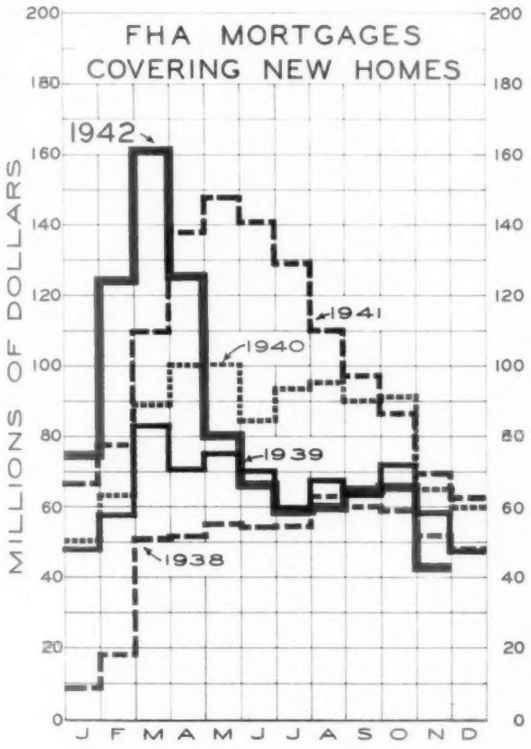
In preparing the material for this chart we went back over all the records of expenditures in the United States from 1789 to the present. We find that total expenditures for all purposes by the Government, excluding public debt retirement, from 1789 to October 1942 totalled $237,054,348,000. In the 144 years from 1789 to March 1, 1933, the beginning of the administration of Franklin Roosevelt, the total expenditures for all purposes except retirement of the public debt amounted to $111,686,413,000. This included the cost of the first World War, the Spanish-American War, the Civil War, and the War of 1812. It included the Louisiana Purchase, the purchase of Alaska, and the building of the Panama Canal. In the eight and three-quarter years which have elapsed since, we have spent $125,367,935,000, or almost $14 billion more than we spent in the preceding 144 years.

While the preceding comparison is of tremendous importance from the standpoint of the outlook for inflation, with its effect on real estate and mortgages, it is not entirely fair as a criticism against the present administration as it includes, during the last few years, the cost of our defense program and the cost of the present war. Our defense program started in July 1940, so let us exclude all expenditures from that date to the present from our total. If we do this, we find that in seven and a quarter years, from March 1933 to July 1940, we spent $58 billion, which is $3.7 billion more than half of the total expenditures of the preceding 144 years.

One fundamental difficulty with the New Deal conception of government is that a planned and socialized economy can only be operated with a tremendous tax program. This was getting badly out of hand before the war started. Now the stupendous cost of the war must be piled on top, and if we continue in the post-war period we cannot assume that taxes can be lowered by any great degree.

In considering the effect of inflation on real estate it should always be remembered that its effect on residential building comes primarily from the changes in construction cost, and only becomes effective in actually increasing real estate values after considerable construction volume is necessary. This means that in a city gaining population rapidly, where new building is necessary in large quantities, any change in construction costs becomes effective quite rapidly in changing the values of buildings already standing. On the other hand, in a community losing population very little new building is necessary, and as a result even a considerable volume of inflation has a rather slight and slow effect on real estate values.


REAL ESTATE TRANSFERS IN PRINCIPAL CITIES
COPYRIGHT 1942 ~ REAL ESTATE ANALYSTS, INC. ~ SAINT LOUIS
INDEX 1940 = 100
ATLANTA
NATIONAL AVERAGE
BUFFALO
COLUMBUS
DETROIT
HOUSTON
INDIANAPOLIS
MIAMI
NATIONAL AVERAGE
NEW YORK CITY
PITTSBURGH
SAN FRANCISCO
SEATTLE
SYRACUSE
NATIONAL AVERAGE
150
120
100
80
60
50
40
30
1933 '34 '35 '36 '37 '38 '39 '40 '41 1942



THE chart to the left shows a comparison of FHA mortgages for the past five years covering only new homes to be built. During the first three months of 1942 this volume of financing exceeded that a year ago by a wide margin. Starting in April, however, the totals are much below the corresponding month of last year although in the last few months the gap has been getting smaller.

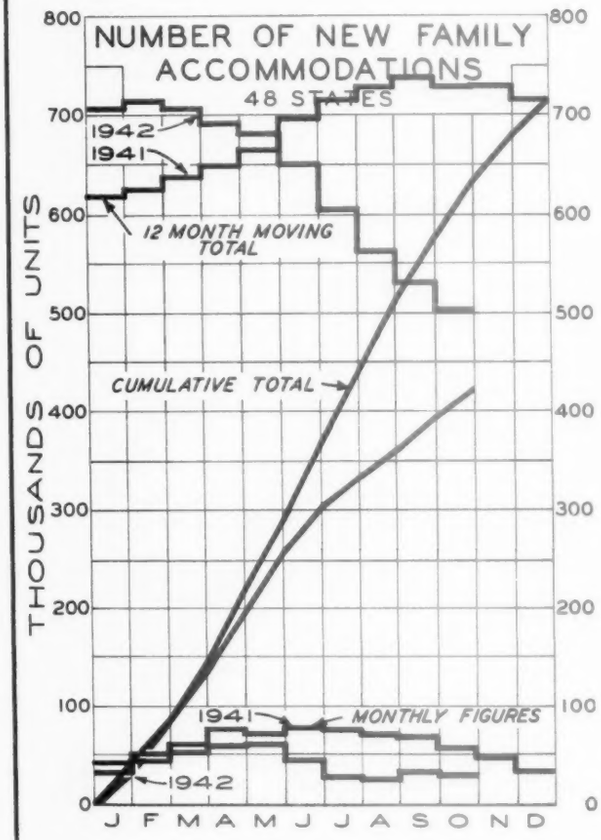
An analysis of these mortgages, particularly in the last three or four months would show that they are concentrated largely in a relatively small number of defense areas and that in a large part of the United States new residential building has practically stopped.

In our opinion, mortgage volume will be off badly in 1943, with intense competition for such business as is available. Portfolios will be raided and much refinancing will be done. Competition will not be limited to interest rates but will use inflated appraisals to increase the size of the loan.

THE EFFECTS OF WARS ON REAL ESTATE AND CONSTRUCTION CYCLES

The large chart published annually has just been sent to our clients. As long as they last, additional copies may be ordered by subscribers to our reports at 50¢ each. Special prices will be quoted on quantities of fifty or more. The chart is sold by direct mail to non-subscribers all over the United States at $5.00.

This chart is 22 x 34 inches and is printed in eight colors. It is suitable for framing or for reference under the glass of a desk.

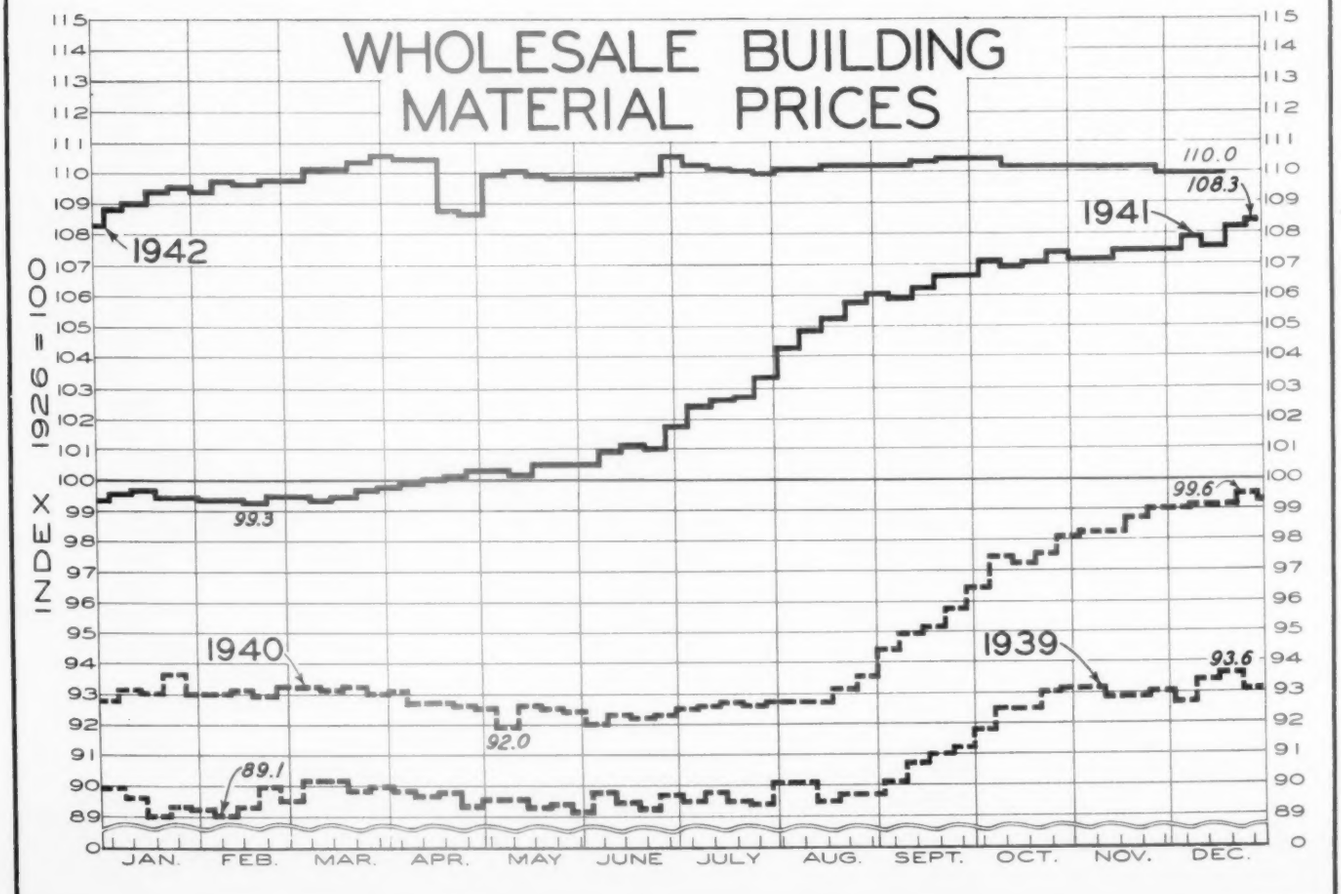


DWELLING UNITS CONSTRUCTED IN 48 STATES
(in thousands of units)

	Monthly			Cumulative			12 Month Moving Total		
	1940	1941	1942	1940	1941	1942	1940	1941	1942
January	25.7	41.2	33.9	25.7	41.2	33.9	511.0	618.1	707.9
February	36.9	43.7	51.5	62.6	84.9	85.4	515.4	624.9	715.7
March	46.0	60.2	52.7	108.6	145.1	138.1	519.7	639.1	708.2
April	62.9	75.2	59.5	171.5	220.3	197.6	535.5	651.4	692.5
May	57.0	70.7	60.8	228.5	291.0	258.4	535.7	665.1	682.6
June	44.4	77.2	47.2	272.9	368.2	305.6	534.0	697.9	652.6
July	57.5	74.6	27.9	330.4	442.8	333.5	547.2	715.0	605.9
August	55.7	69.8	27.4	386.1	512.6	360.9	550.6	729.1	563.5
September	58.4	67.0	34.3	444.5	579.6	395.2	570.3	737.7	530.8
October	66.2	56.2	28.9	510.7	635.8	424.1	600.1	726.7	503.5
November	44.9	46.6		555.6	682.4		601.5	729.4	
December	47.0	32.8		602.6	715.2		602.6	715.2	

THE number of new family accommodations built in all non-farm communities of the 48 states and the District of Columbia is shown in the table above and on the chart to the left. Cumulative totals and twelve month moving totals for 1942 (blue) and 1941 (red) are given. All figures have been revised since June.

Wholesale building material prices as compiled by the Bureau of Labor Statistics are charted by weeks on the chart below. There has been very little change in this level since May 1942, although shortages have been acute.



Soc. Sc. RR.

DECEMBER 30
1942

EXECUTIVE DIGEST

OF THE CURRENT REAL ESTATE ANALYST REPORTS

REAL ESTATE ANALYSTS, INC.
Real Estate Economists, Appraisers and Counselors

VOLUME XI

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Roy Wenzlick
Editor

L. R.

REAL ESTATE ACTIVITY

The chart on the center spread of this report is more encouraging than we had reason to believe it would be, in view of rent control and the drastic limitation on sales of the OPA. Real estate activity, which is computed from the relationship of the number of voluntary transfers of real estate to the number of families in the principal cities, was 6.4% above normal in November. This is but very little lower than the October figure of 6.9% and considerably higher than the figures of this summer. These figures are of course national averages composed of some cities in which real estate activity is running at a very much higher level than in others. As long as the war continues activity will be confined largely to centers in which war activities are taking place.

REAL ESTATE MORTGAGES

Mortgage volume in principal cities has been declining slowly during all of 1942. This was expected because of the decline in new construction. Over a long period of years there has been considerable similarity in the lines on our chart indicating new building and mortgage volume.

Until after the war there will be a great deal of very keen competition among mortgage lenders. Unfortunately many will compete on the basis of the percentage they will loan and many unwise loans will be made.

It is interesting to note that even after the drop in mortgage volume of this last year it is still averaging higher than it did in any of the depression years prior to 1940.

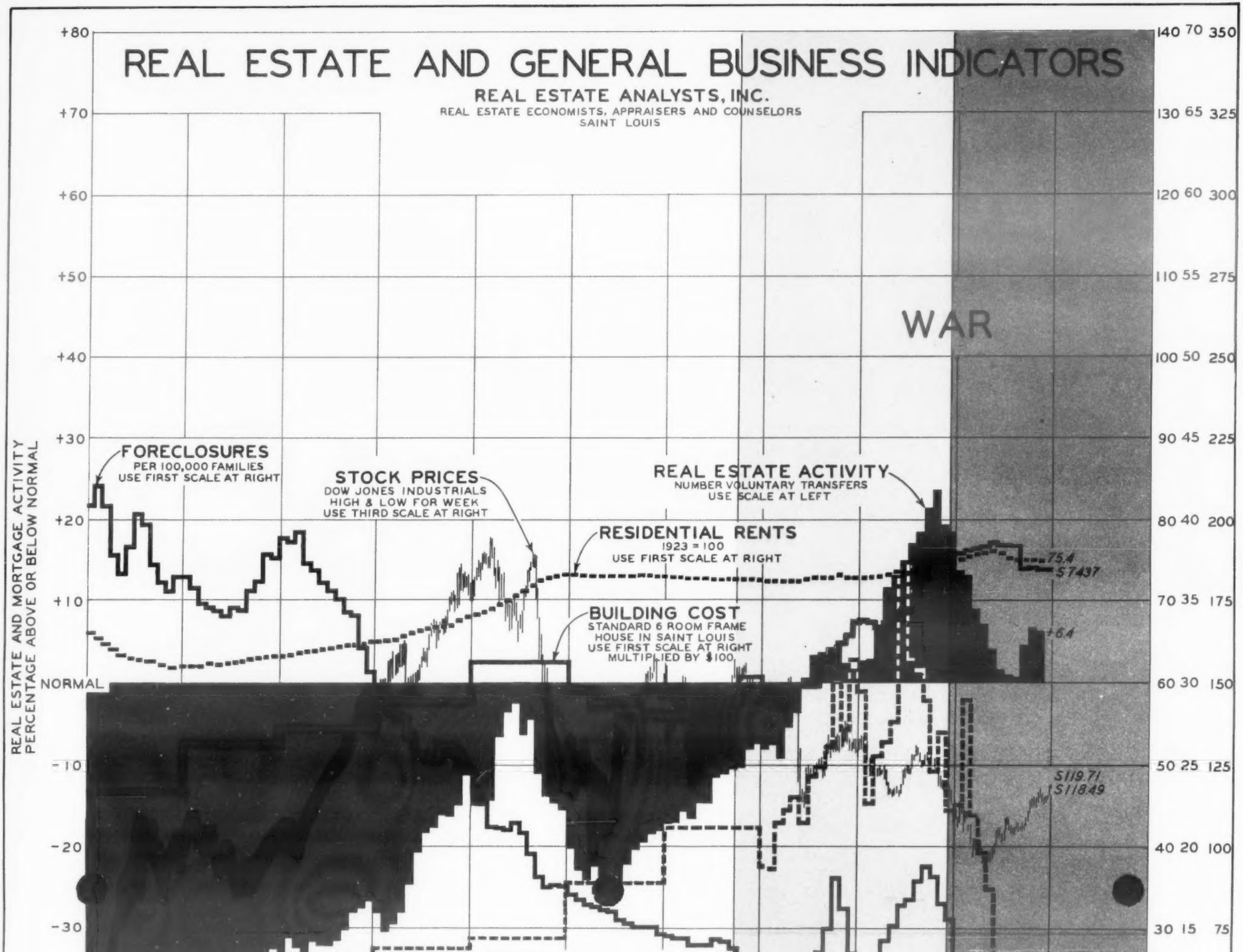
NEW DWELLING UNITS

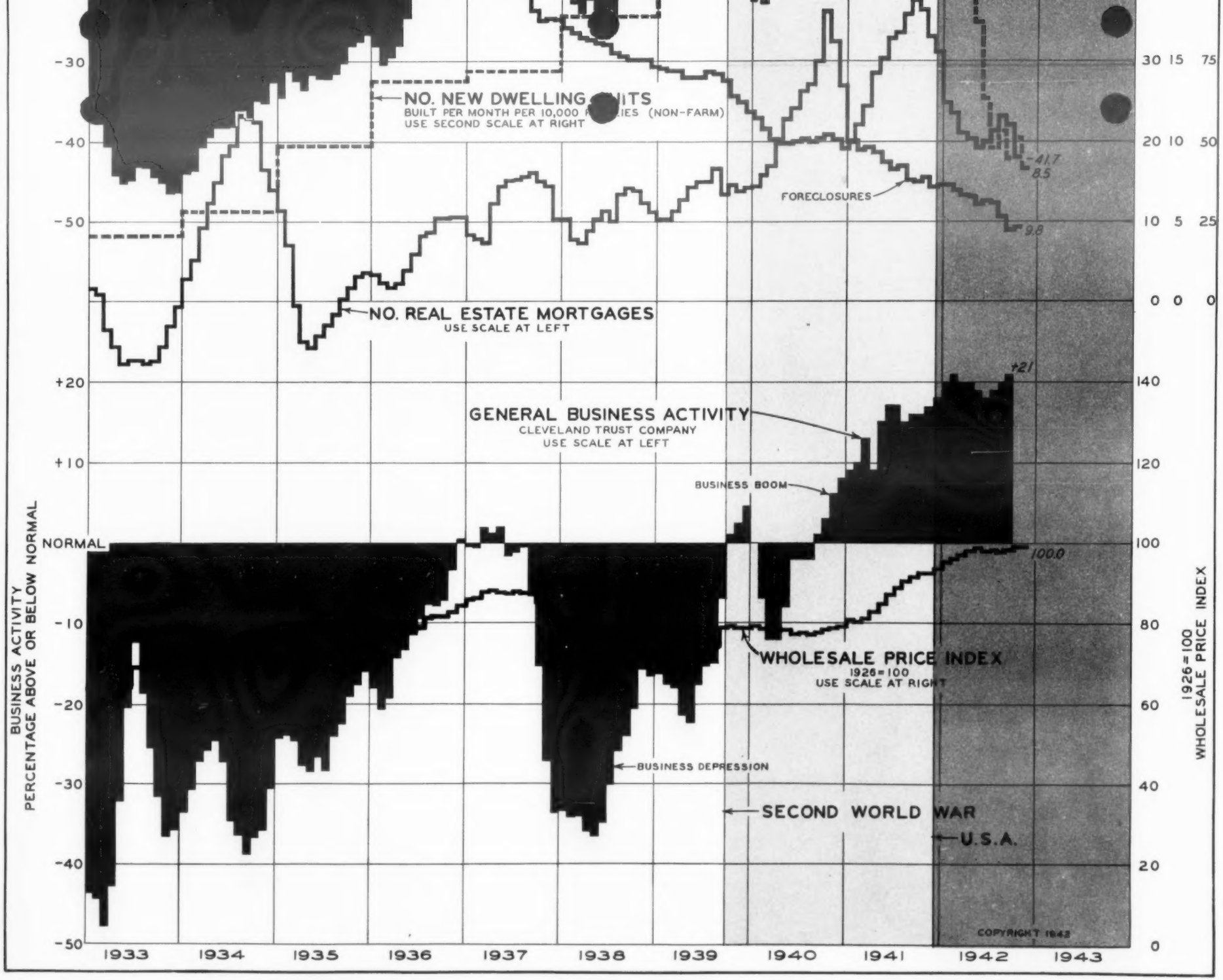
In the forecast issue of the Real Estate Analyst in January 1942 we said that in our opinion 450,000 dwelling units would be built during the year. At that time this estimate was much below those of most of the other forecasting organizations. The preceding year we had built 715,000 non-farm dwellings in the United States. It now looks as if our estimate for the year will be about right. We have built 424,000 dwelling units in the first ten months.

BUSINESS ACTIVITY

There has been relatively little change in general business activity during 1942. Most plants engaged on any type of war work are working at capacity and will continue on this basis for the duration. The shutdowns of plants on consumer goods unable to get materials have been balanced by the increased production of war plants.

General business activity will move sideways for some time to come with-


REAL ESTATE AND GENERAL BUSINESS INDICATORS
REAL ESTATE ANALYSTS, INC.
REAL ESTATE ECONOMISTS, APPRAISERS AND COUNSELORS
SAINT LOUIS
WAR
REAL ESTATE AND MORTGAGE ACTIVITY
PERCENTAGE ABOVE OR BELOW NORMAL
+80
+70
+60
+50
+40
+30
+20
+10
NORMAL
-10
-20
-30
140 70 350
130 65 325
120 60 300
110 55 275
100 50 250
90 45 225
80 40 200
70 35 175
60 30 150
50 25 125
40 20 100
30 15 75
FORECLOSURES
PER 100,000 FAMILIES
USE FIRST SCALE AT RIGHT
STOCK PRICES
DOW JONES INDUSTRIALS
HIGH & LOW FOR WEEK
USE THIRD SCALE AT RIGHT
REAL ESTATE ACTIVITY
NUMBER VOLUNTARY TRANSFERS
USE SCALE AT LEFT
RESIDENTIAL RENTS
1923 = 100
USE FIRST SCALE AT RIGHT
BUILDING COST
STANDARD 6 ROOM FRAME
HOUSE IN SAINT LOUIS
USE FIRST SCALE AT RIGHT
MULTIPLIED BY $100
75.4
$74.37
+6.4
$119.71
$118.49


NO. NEW DWELLING UNITS
BUILT PER MONTH PER 10,000 POPULATION (NON-FARM)
USE SECOND SCALE AT RIGHT
FORECLOSURES
-41.7
8.5
9.8
NO. REAL ESTATE MORTGAGES
USE SCALE AT LEFT
+21
GENERAL BUSINESS ACTIVITY
CLEVELAND TRUST COMPANY
USE SCALE AT LEFT
BUSINESS BOOM
100.0
WHOLESALE PRICE INDEX
1926=100
USE SCALE AT RIGHT
BUSINESS DEPRESSION
SECOND WORLD WAR
U.S.A.
COPYRIGHT 1943
BUSINESS ACTIVITY
PERCENTAGE ABOVE OR BELOW NORMAL
NORMAL
+20
+10
-10
-20
-30
-40
-50
1926=100
WHOLESALE PRICE INDEX
140
120
100
80
60
40
20
0
30 15 75
20 10 50
10 5 25
0 0 0
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943

out any marked upward movement and with slight possibility of a drop. It is probable that during 1943 "peace scares" will develop from time to time, with a disturbing effect on new orders.

STOCK PRICES

During November and December the stock market has moved largely sideways on industrial stock prices, irregularly lower on rails, and irregular on utilities. Real Estate Analysts, Inc. does not forecast movements of stock prices as these movements are quite frequently so erratic that consistent accuracy in forecast is improbable.

RENTS

Residential rents have shown a very slight decline in the past month, from 75.5 on our index to 75.4. Rents are fairly well stabilized now as the reductions due to the rent control legislation are practically all enforced, and from now on relatively little movement can be expected in this line until different war conditions bring a change in rent ceiling provisions.

FORECLOSURES

With the exception of a few cities in which there is practically no defense activity, foreclosures have declined to the point where they have become insignificant from the standpoint of the real estate picture. This is due to the fact, however, that we have been on a rising cycle for some time and is not an indication that the large percentage amortized loan has solved all of our foreclosure problems.

BUILDING COSTS

The cost of constructing our standard six-room frame residence in St. Louis during December was $7437, no change from the November figure. In December of a year ago the cost was $7592.

WHOLESALE PRICES

There has been relatively little change in the level of wholesale prices as many of the prices included in the index are under ceiling restrictions. We believe that this line will slowly inch upward during 1943.

VOLUME XI

CONSTRUCTION BULLETIN

DECEMBER 30
1942

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REAL ESTATE ANALYSTS, INC.

Real Estate Economists, Appraisers and Counselors

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Roy Wenzlick
Editor

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RESIDENTIAL BUILDING IN METROPOLITAN AREAS

PRIVATE residential building in all metropolitan areas of the United States as defined by the 1940 Census, is charted on the following pages. The 140 areas include all areas in which the central city has a population of more than 50,000.

Every effort has been made to make this report complete. In each city all suburbs, incorporated and unincorporated, have been contacted, and in all except fourteen it has been possible to include practically all of the suburbs within the metropolitan area. For example, the New York City figure includes the building in 305 suburban communities; Philadelphia, 154; Pittsburgh, 157; Chicago, 99; and Detroit, 65. In all, more than 2200 communities are represented on these charts. In the fourteen cities where figures are not available for all suburbs, new building in those suburbs has been estimated from other sources, and the estimated total for the area is shown by the dotted curve on the chart.

The Bureau of Labor Statistics in Washington has collaborated to the fullest extent in furnishing all figures they have accumulated on various communities. These have been brought up to date by direct correspondence with the individual cities and towns.

In all cities new building is expressed as the number of new family accommodations being built per month per 10,000 families in the metropolitan areas. In the computation, a single-family dwelling counts one, a two-family dwelling counts two and a twenty-four-family apartment counts twenty-four. All Federal subsidized slum clearance projects and Government financed defense housing have been excluded; only building under private initiative is significant from the standpoint of showing demand strong enough to pay the unsubsidized cost. (At present, however, even though the demand is strong, many private investors are deterred from building by the heavy restrictions and also by the fact that the demand is temporary.) Buildings privately built and financed with FHA loans are included on the charts.

All figures both on individual cities and on national averages have been corrected for seasonal fluctuations.

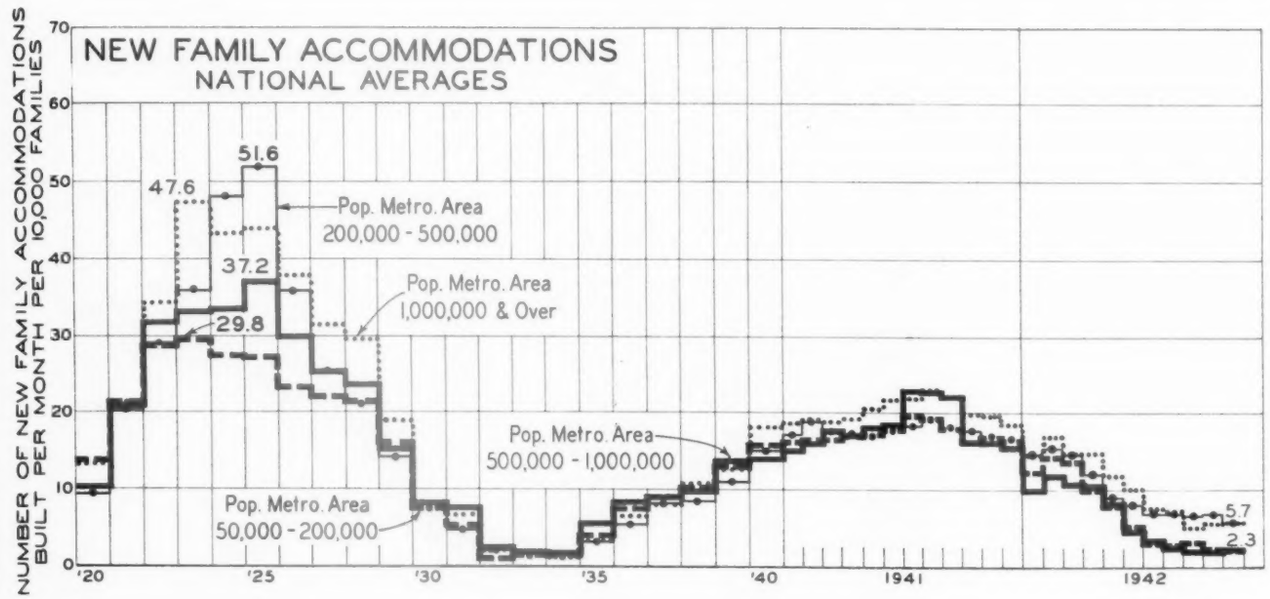
The blue italicized numerals on each chart give the number of private new family accommodations built in the last three months; these are actual figures and are not adjusted for the number of families. The red italicized numerals give the corresponding figures for the same period of a year ago.

The star after the name of a metropolitan area indicates that at least some portion of that area has been designated by the President as a WPB Defense Housing Critical Area in which priority assistance will be given to secure items on the Defense Housing Critical List, or as an FHA Title VI Designated Defense Area in which FHA will insure housing loans under Title VI of the National Housing Act.

Each chart shows the population of the metropolitan area included in the figures.

It should be noticed that separate averages (medians) have been used for four groupings of metropolitan areas. The average number of new family accommodations built per month per 10,000 families is shown from 1920 to the present for metropolitan areas having from 50,000 to 200,000 people (the dashed red line); for areas having from 200,000 to 500,000 people (the beaded red line); from 500,000 to 1,000,000 people (the solid red line); and for those areas having a population of over 1,000,000 (the dotted red line). Eighty areas fall into the first category; thirty-eight in the second; and eleven in each of the third and fourth.

On each area chart is shown in red the national average for areas in its grouping in contrast to the blue line which shows the figures for the specific area. The averages used on the area charts are medians. A median average is found by arranging the data in order of size and selecting the amount at the midpoint. Because a median average thus eliminates the influence of the extremes, it gives a very good picture of the typical area in each group. A direct comparison can be made between each area and the median average of its group.



On the chart above we have shown national averages for each of the groupings of metropolitan areas -- (1) 50,000 to 200,000 population, (2) 200,000 to 500,000 population, (3) 500,000 to 1,000,000 population and (4) 1,000,000 population and over. These averages should more properly be called arithmetic

(Continued on page 402)

NEW FAMILY ACCOMMODATIONS PER 10,000 FAMILIES

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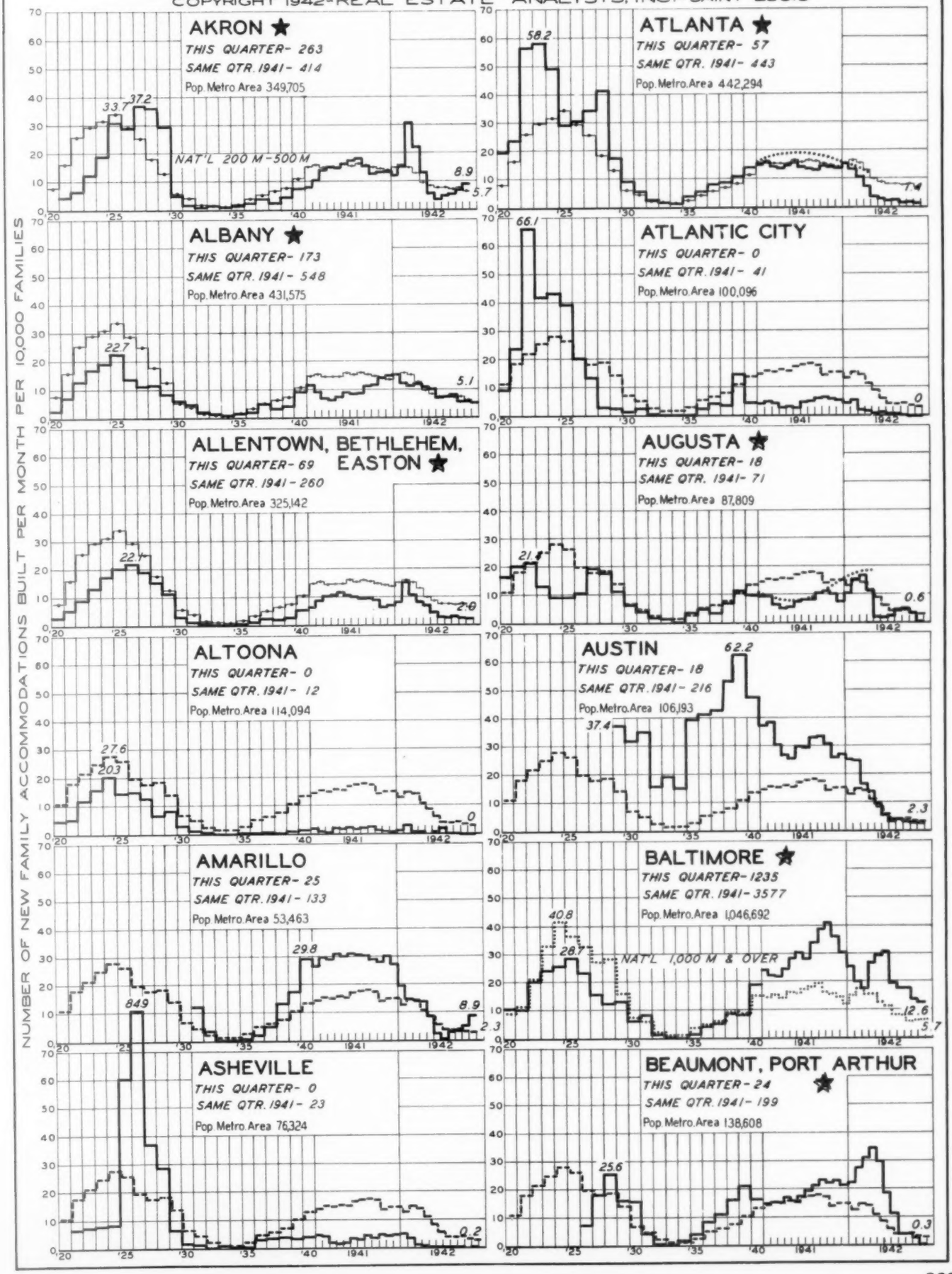
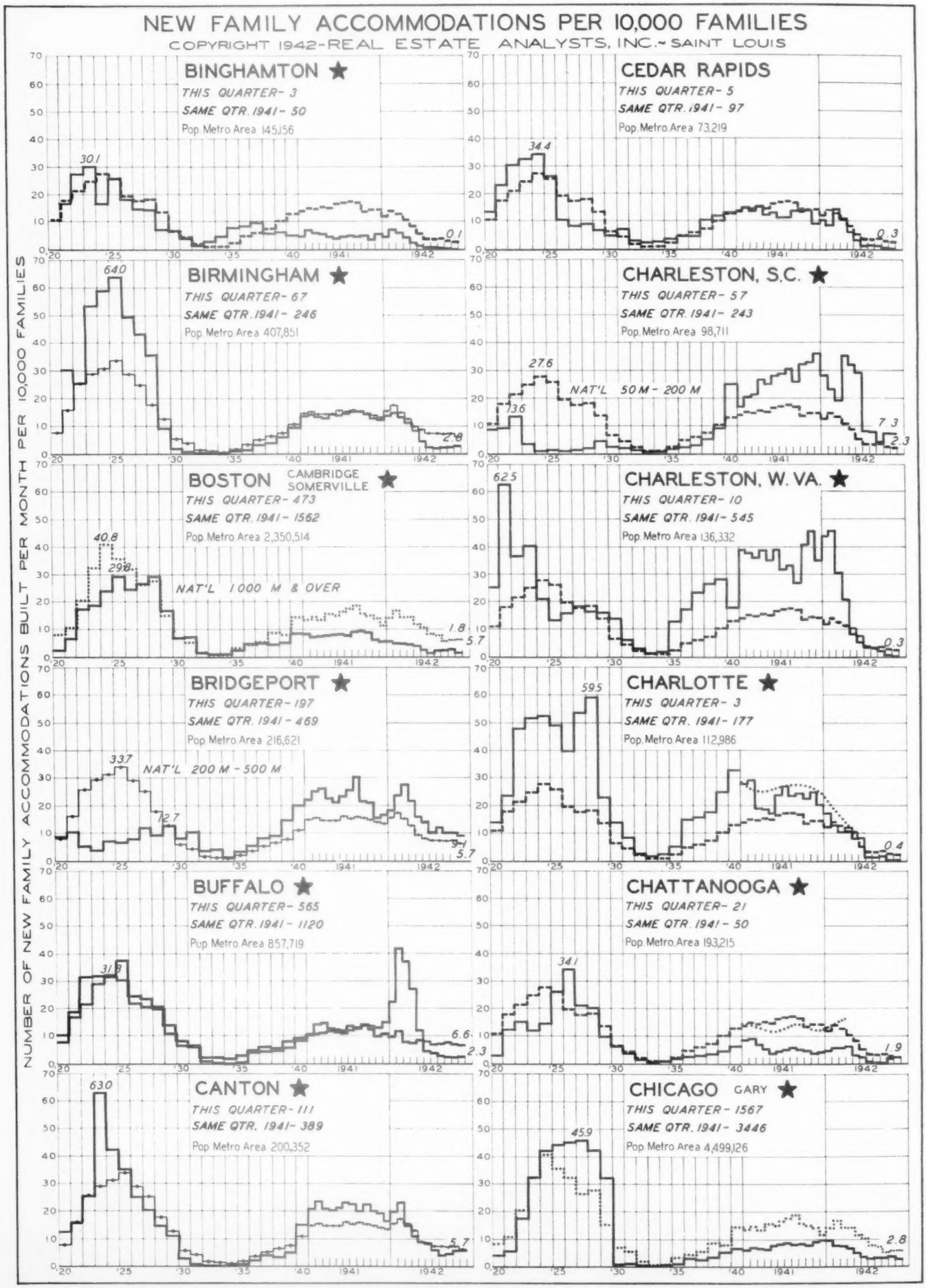
NUMBER OF NEW FAMILY ACCOMMODATIONS BUILT PER MONTH PER 10,000 FAMILIES




NEW FAMILY ACCOMMODATIONS PER 10,000 FAMILIES
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NUMBER OF NEW FAMILY ACCOMMODATIONS BUILT PER MONTH PER 10,000 FAMILIES
BINGHAMTON ★
THIS QUARTER- 3
SAME QTR. 1941 - 50
Pop. Metro Area 145,156
30.1
0.1
CEDAR RAPIDS
THIS QUARTER- 5
SAME QTR. 1941 - 97
Pop. Metro Area 73,219
34.4
0.3
BIRMINGHAM ★
THIS QUARTER- 67
SAME QTR. 1941 - 246
Pop. Metro Area 407,851
64.0
2.8
CHARLESTON, S.C. ★
THIS QUARTER- 57
SAME QTR. 1941 - 243
Pop. Metro Area 98,711
27.6
NAT'L 50 M - 200 M
13.6
7.3
2.3
BOSTON CAMBRIDGE SOMERVILLE ★
THIS QUARTER- 473
SAME QTR. 1941 - 1562
Pop. Metro Area 2,350,514
40.8
29.8
NAT'L 1000 M & OVER
1.8
5.7
CHARLESTON, W. VA. ★
THIS QUARTER- 10
SAME QTR. 1941 - 545
Pop. Metro Area 136,332
62.5
0.3
BRIDGEPORT ★
THIS QUARTER- 197
SAME QTR. 1941 - 469
Pop. Metro Area 216,621
33.7
NAT'L 200 M - 500 M
12.7
9.1
5.7
CHARLOTTE ★
THIS QUARTER- 3
SAME QTR. 1941 - 177
Pop. Metro Area 112,986
59.5
0.4
BUFFALO ★
THIS QUARTER- 565
SAME QTR. 1941 - 1120
Pop. Metro Area 857,719
31.8
6.6
2.3
CHATTANOOGA ★
THIS QUARTER- 21
SAME QTR. 1941 - 50
Pop. Metro Area 193,215
34.1
1.9
CANTON ★
THIS QUARTER- 111
SAME QTR. 1941- 389
Pop. Metro Area 200,352
63.0
5.7
CHICAGO GARY ★
THIS QUARTER- 1567
SAME QTR. 1941 - 3446
Pop. Metro Area 4,499,126
45.9
2.8
'20
'25
'30
'35
'40
1941
1942

NEW FAMILY ACCOMMODATIONS PER 10,000 FAMILIES

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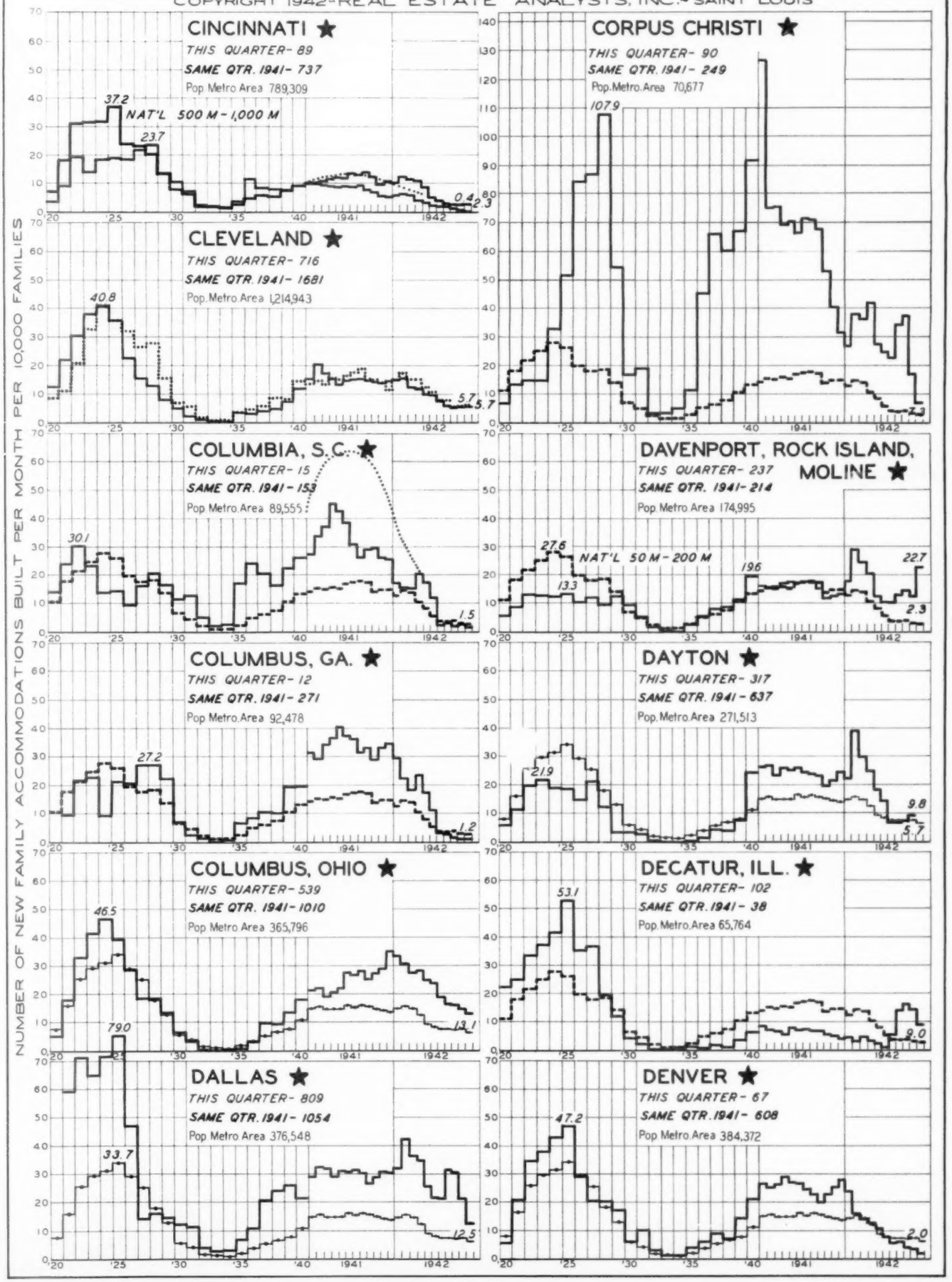

NEW FAMILY ACCOMMODATIONS PER 10,000 FAMILIES

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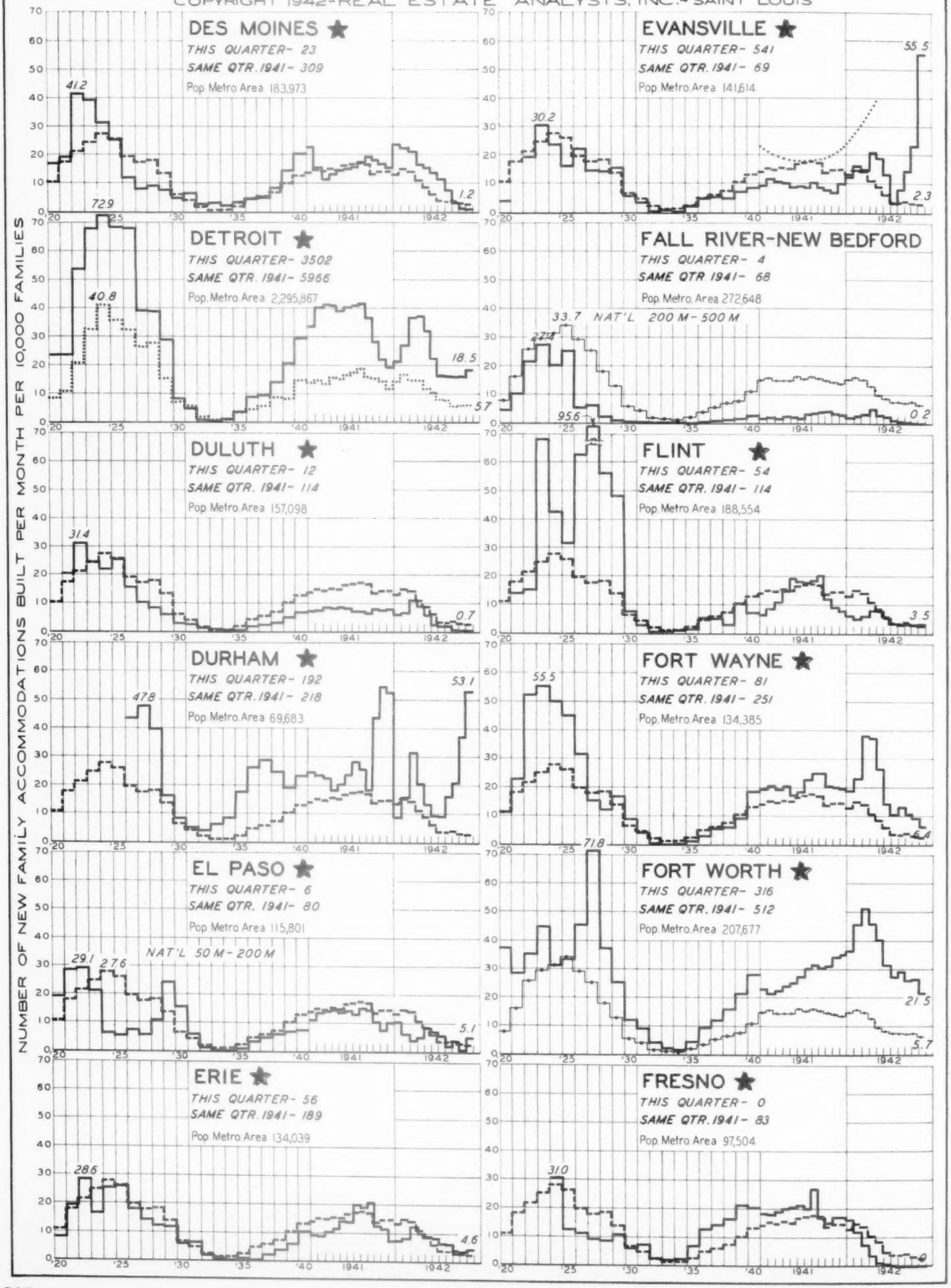
NUMBER OF NEW FAMILY ACCOMMODATIONS BUILT PER MONTH PER 10,000 FAMILIES



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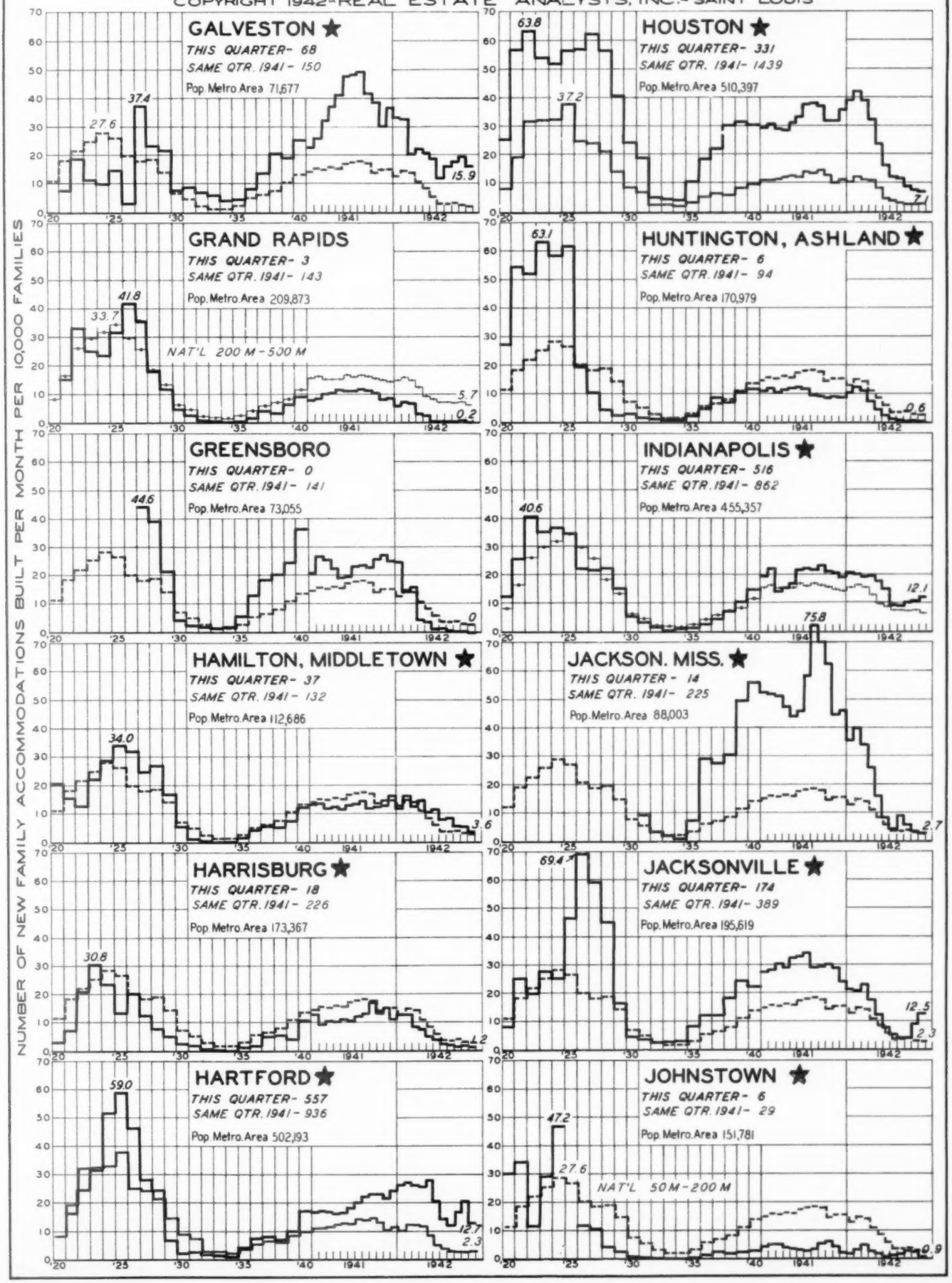

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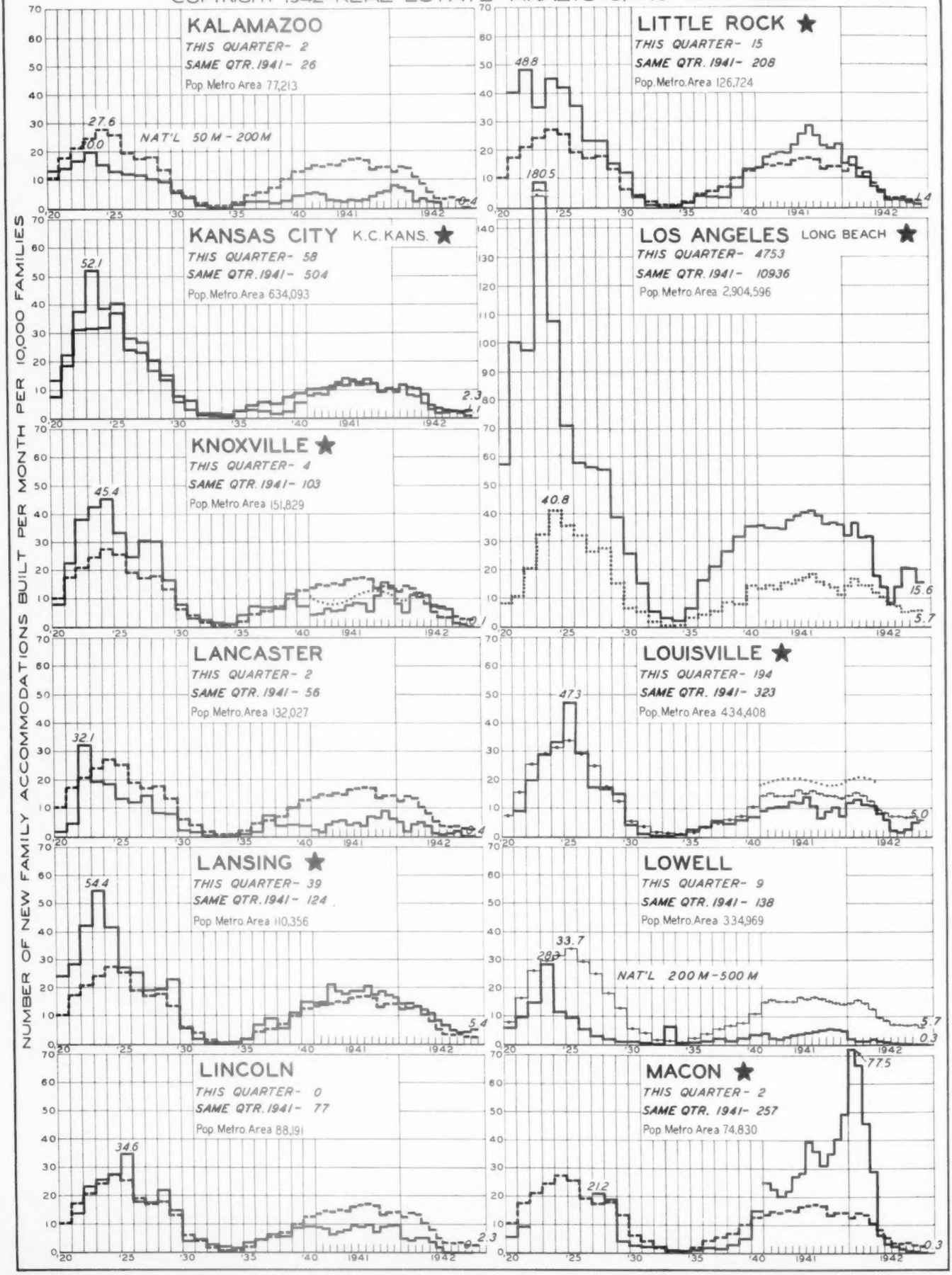

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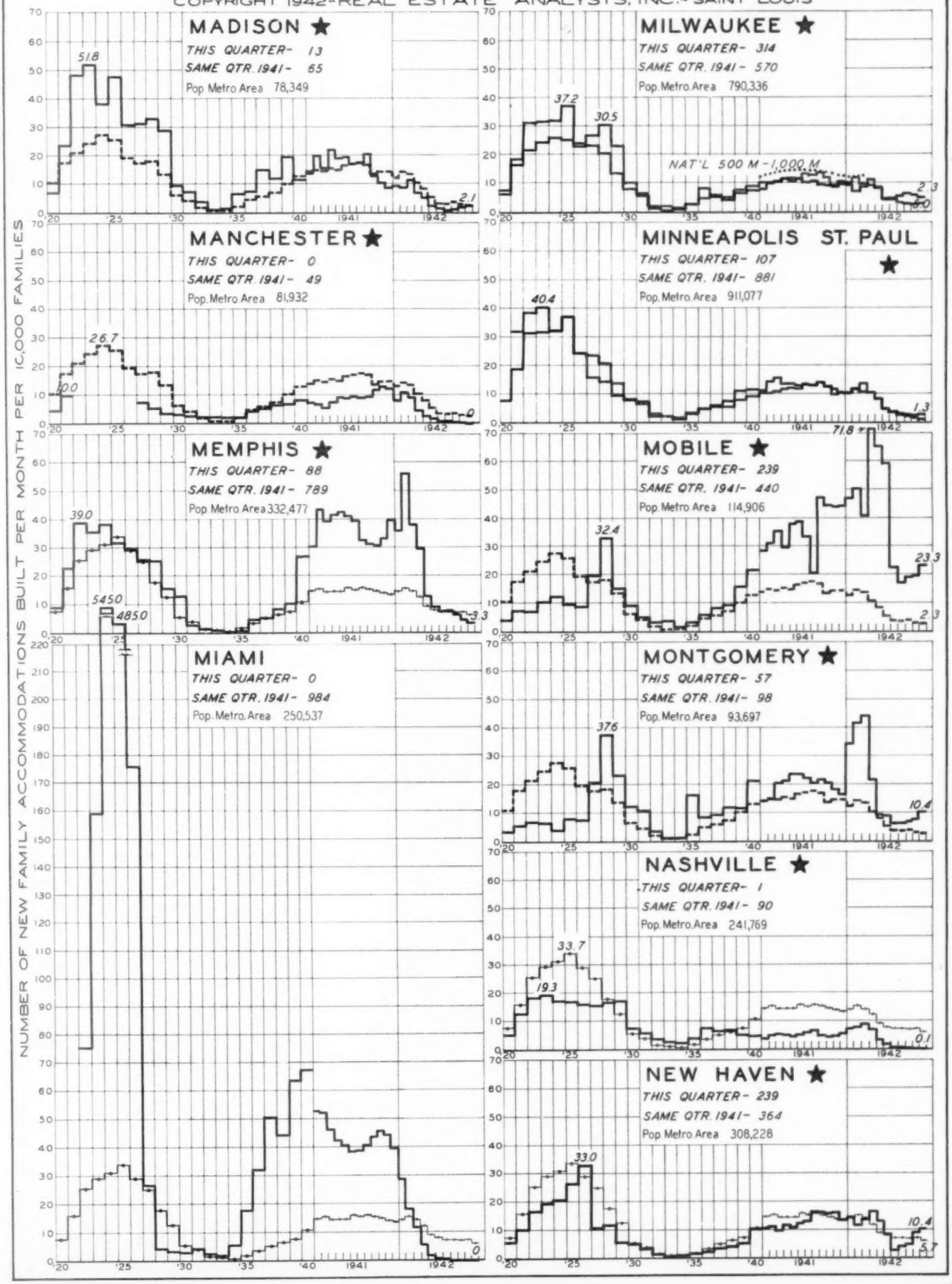

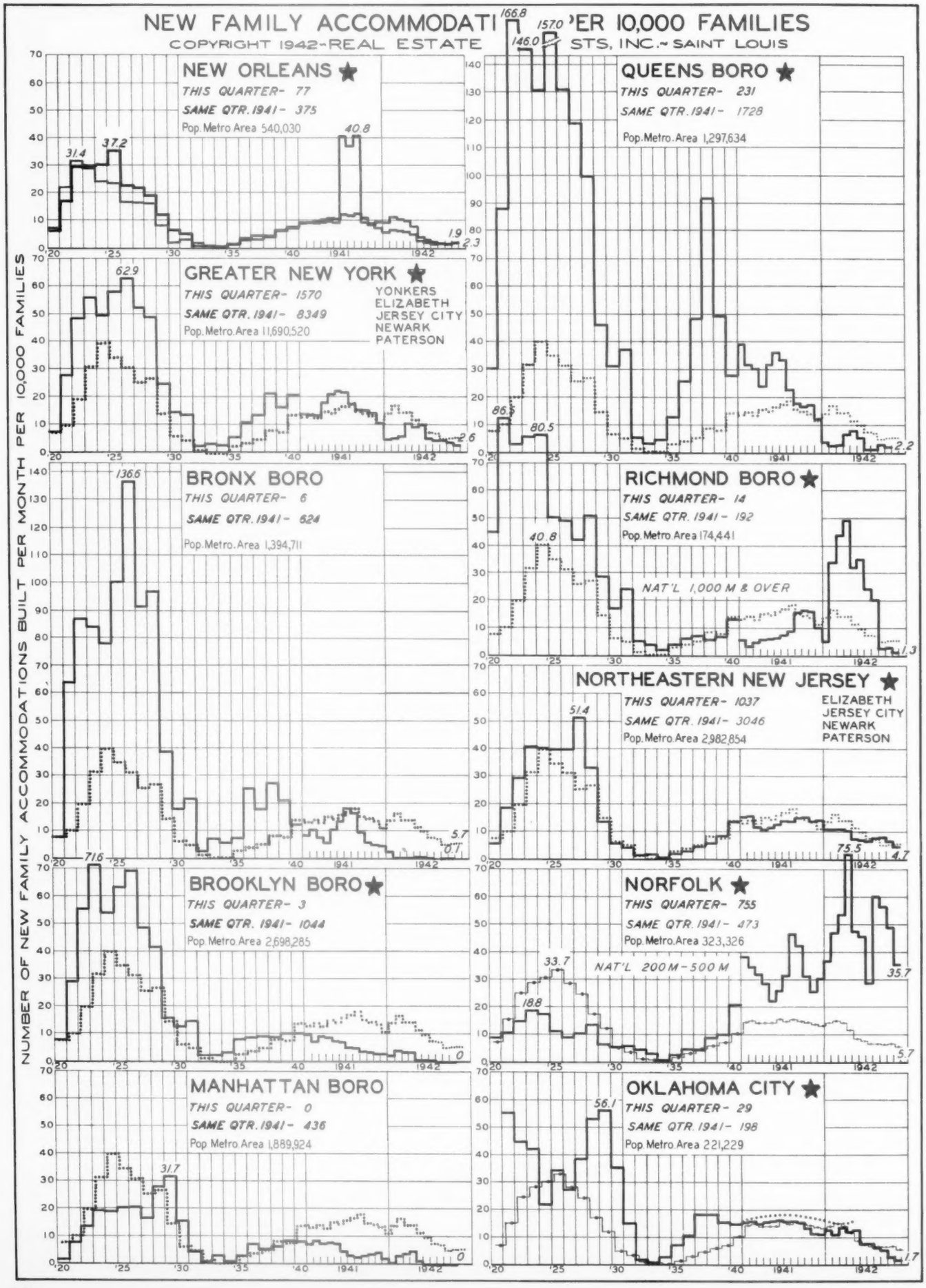
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146.0
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NUMBER OF NEW FAMILY ACCOMMODATIONS BUILT PER MONTH PER 10,000 FAMILIES
NEW ORLEANS ★
THIS QUARTER- 77
SAME QTR. 1941- 375
Pop. Metro Area 540,030
31.4
37.2
40.8
1.9
2.3
QUEENS BORO ★
THIS QUARTER- 231
SAME QTR. 1941- 1728
Pop. Metro. Area 1,297,634
86
80.5
2.2
GREATER NEW YORK ★
THIS QUARTER- 1570
SAME QTR. 1941- 8349
Pop. Metro. Area 11,690,520
YONKERS
ELIZABETH
JERSEY CITY
NEWARK
PATERSON
62.9
2.6
BRONX BORO
THIS QUARTER- 6
SAME QTR. 1941- 624
Pop. Metro. Area 1,394,711
136.6
5.7
0.7
RICHMOND BORO ★
THIS QUARTER- 14
SAME QTR. 1941- 192
Pop. Metro. Area 174,441
40.8
NAT'L 1,000 M & OVER
1.3
NORTHEASTERN NEW JERSEY ★
THIS QUARTER- 1037
SAME QTR. 1941- 3046
Pop. Metro. Area 2,982,854
ELIZABETH
JERSEY CITY
NEWARK
PATERSON
51.4
75.5
4.7
BROOKLYN BORO ★
THIS QUARTER- 3
SAME QTR. 1941- 1044
Pop. Metro. Area 2,698,285
71.6
0
NORFOLK ★
THIS QUARTER- 755
SAME QTR. 1941- 473
Pop. Metro. Area 323,326
33.7
NAT'L 200 M - 500 M
18.8
35.7
5.7
MANHATTAN BORO
THIS QUARTER- 0
SAME QTR. 1941- 436
Pop. Metro. Area 1,889,924
31.7
0
OKLAHOMA CITY ★
THIS QUARTER- 29
SAME QTR. 1941- 198
Pop. Metro. Area 221,229
56.1
1.7
'20 '25 '30 '35 '40 1941 1942

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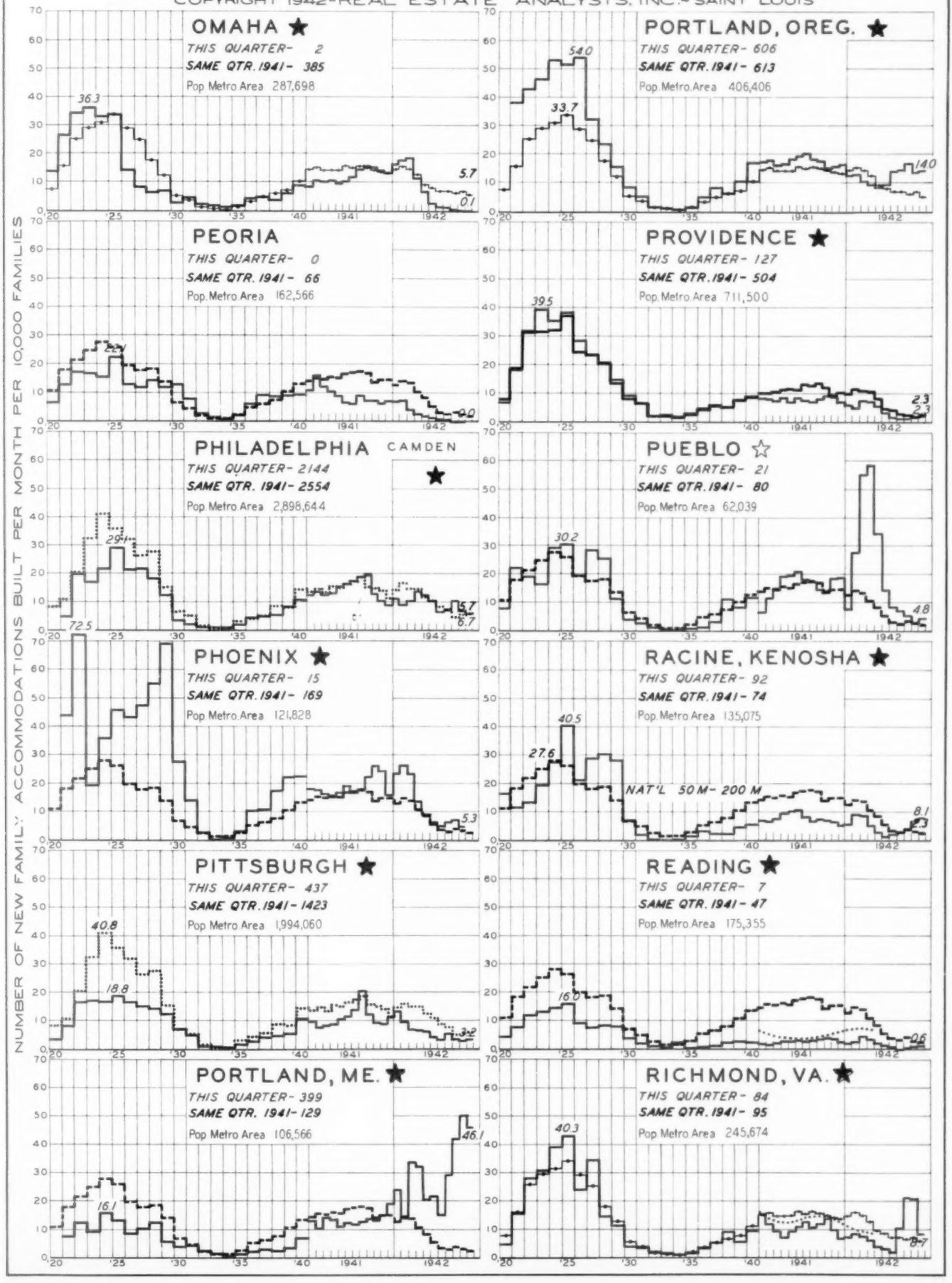

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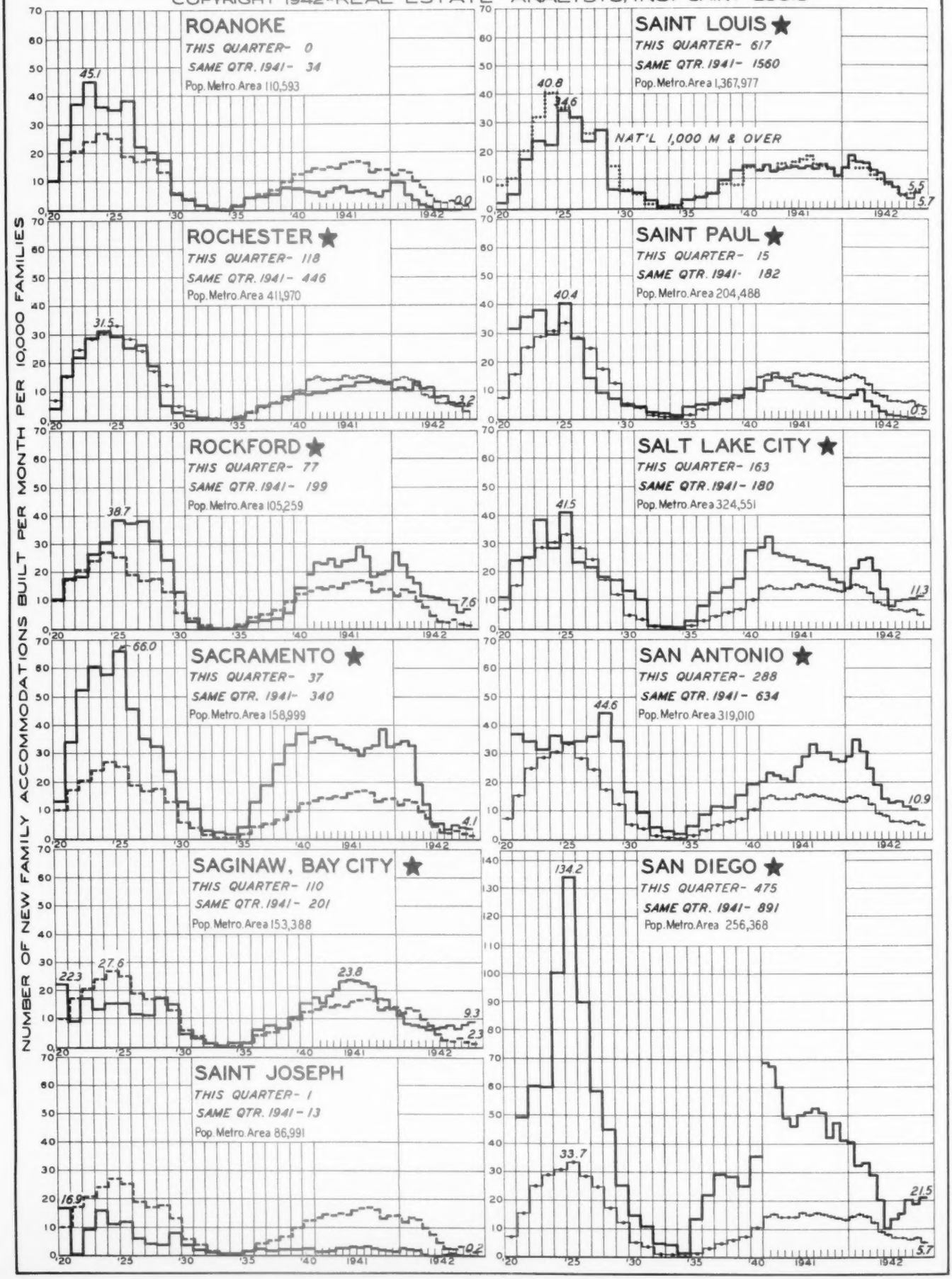

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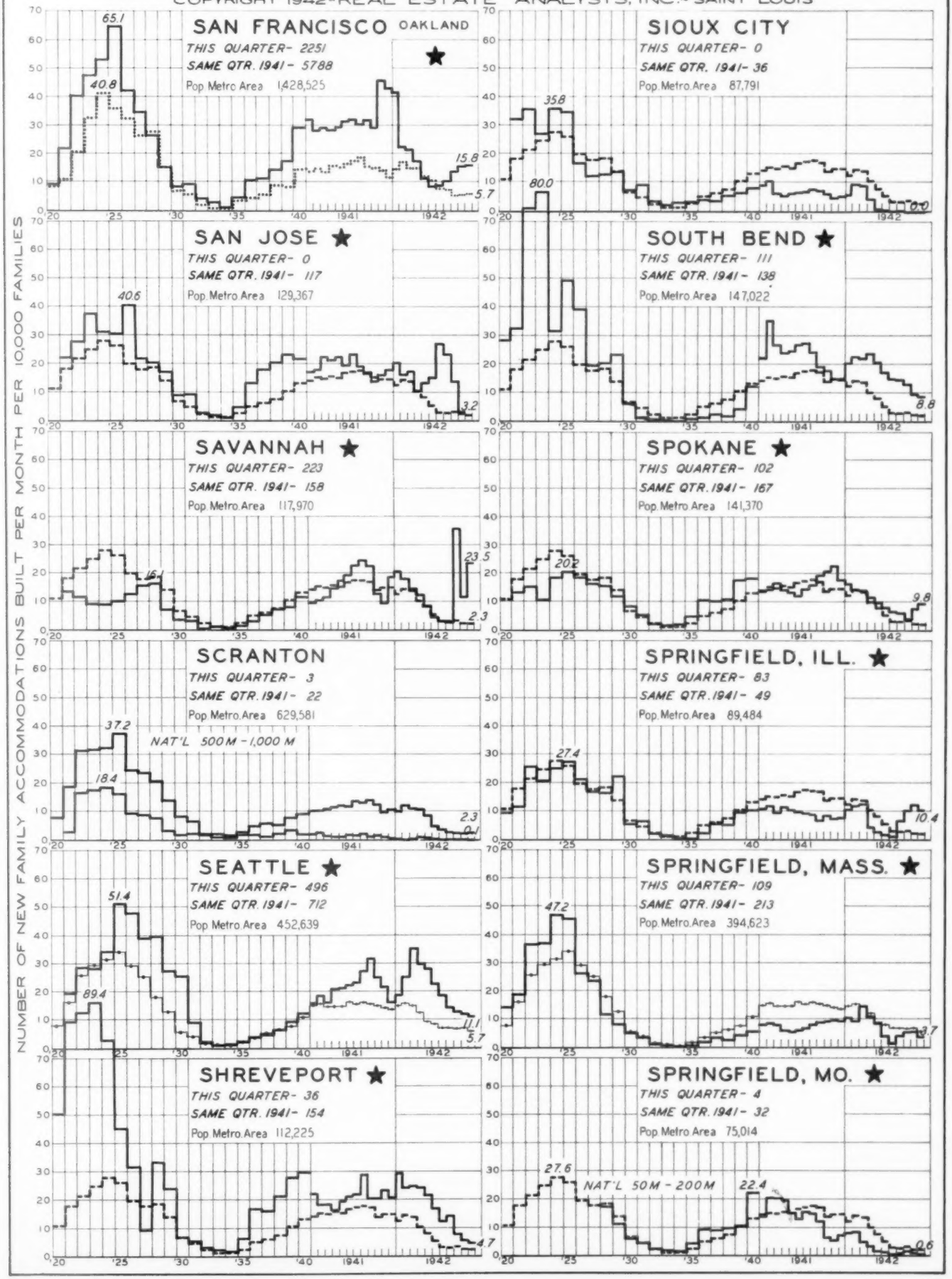

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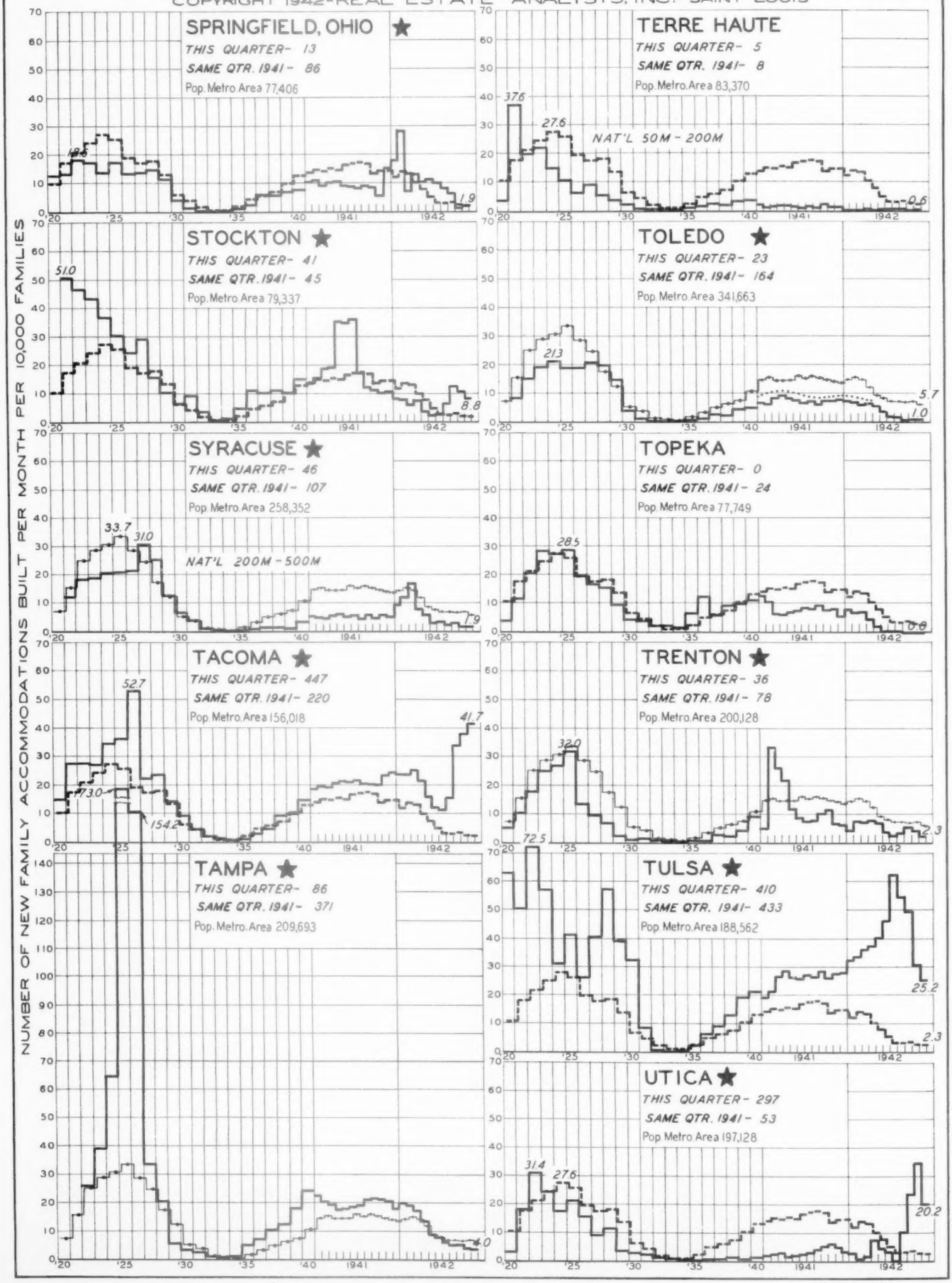

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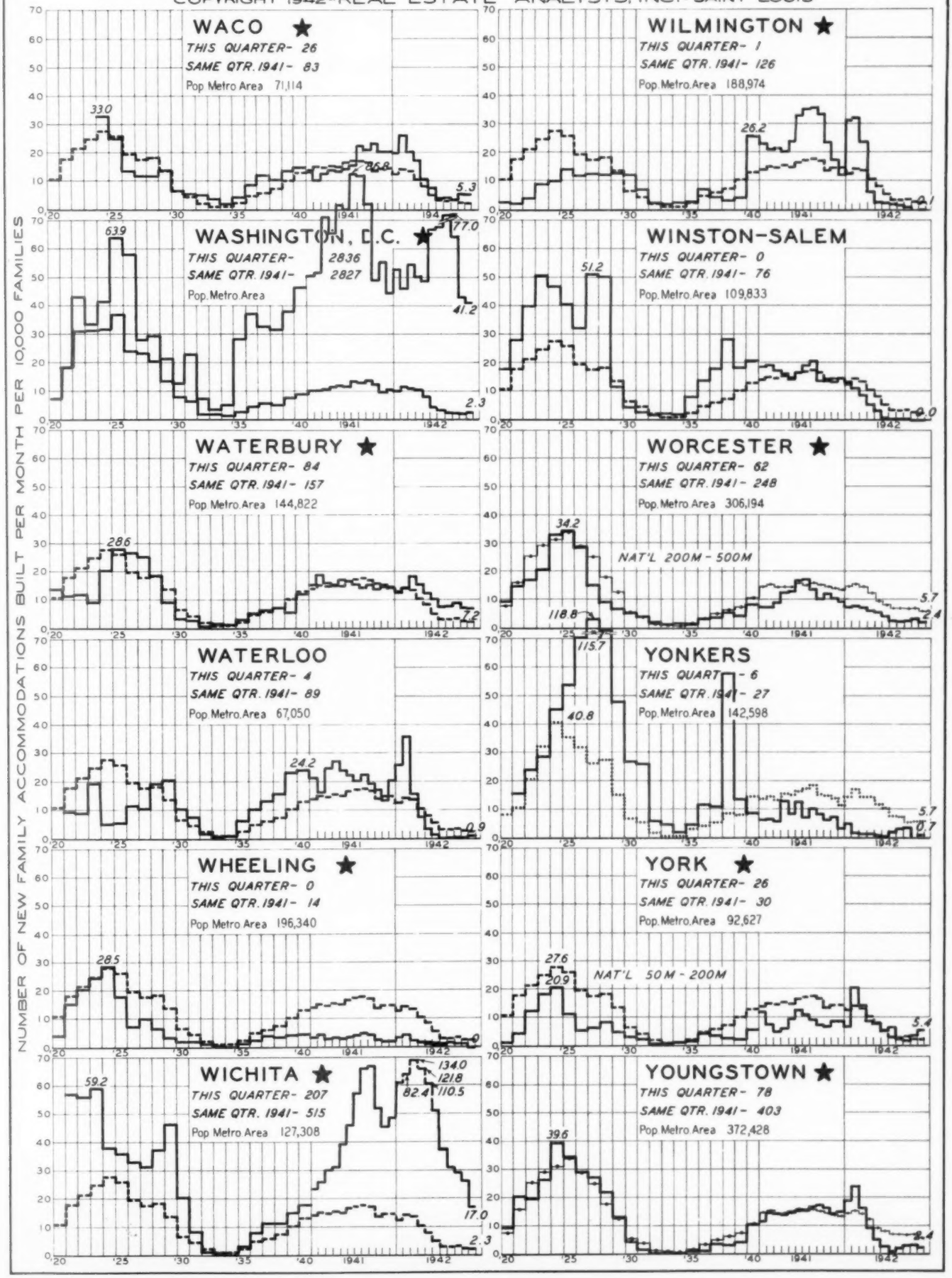

means. An arithmetic mean is what most people think of when they hear the word average, and it is obtained by adding the amounts of all the items and then dividing by the number of items. It will be noticed that the arithmetic mean, being influenced by areas with a greatly accelerated rate of new building, is above the median average of each of the groupings. The arithmetic means are given for each grouping so that a comparison of new building can be made on a volume basis.

Both averages (median and mean) follow the same general trends. Since 1935 the trend has been steadily upward, the peak being reached in the late summer of 1941. From this time on, the trend has been downward. This, of course, is to be expected because of the restrictions on new building.

REAL ESTATE ANALYSTS INC.

VOLUME XI

DECEMBER 30
1942

As I see

THE DECENTRALIZATION OF CITIES

ALMOST all of the larger ancient and medieval cities were surrounded by walls, and safety required that the citizens live within them. Organized brigandry filled in the short intervals between major wars and necessitated the closing of the city gates at night.

The walls of these ancient cities were quite impressive affairs, running from about thirty to one hundred feet in height, often with massive towers and immense gates.

The necessity of confining a population within a massive wall of this type brought about tremendous congestion, almost unbelievable in view of the very limited sanitary conveniences and the total lack of all vertical transportation.

Thucydides, the famous historian of the 5th century B. C. and an Athenian general, tells us that the walls of Athens were 43 stades (4.94 miles) in circumference. At that time Athens had a population of about 300,000 people. This is an average of 250 persons per acre.

This figure becomes more significant if we compare it with the density of some of our American cities. In New York City in 1940 the average number of persons per acre is shown in the following table for each borough and for the city as a whole:

Manhattan	134.2
Brooklyn	59.4
Bronx	53.2
Queens	18.8
Richmond	4.8
New York City	38.9

Chicago had an average density in 1940 of 25.6 persons per acre; Boston had a density of 26.1 persons per acre.

From the foregoing figures it will be seen that 500 years B. C. Athens had a density of population six and a half times the density of New York City, almost twice as great as the density on Manhattan Island, four times the density of Brooklyn, and almost ten times that of either Chicago or Boston.

Hecataeus, a Greek historian of about 300 B. C., traveled into Syria with

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Ptolemy I and describes Jerusalem as having a wall 50 stades (5.75 miles) in circumference, with twelve myriads (120,000) of people. This would give a density of from eighty to over one hundred persons per acre, depending on the shape of the enclosed area.

The city of Rome at the time of Christ had a population generally estimated at a million, living in an area of about six and one-half square miles, or about 240 persons per acre. The streets were from seven to ten feet wide, flanked on either side with tenements reaching in some cases to ten stories in height.

In all early cities building sites within the walls had a high scarcity value. In Florence, Italy in the year 1209 four ground leases were granted in the Borgo of Santa Maria Novella. From these deeds we find that the lessees were bound to erect multi-storied houses, but the largest of the four sites was approximately ten by fifteen feet. As a result of this scarcity value of ground most buildings in Florence at that time were quite high, consisting of towers with but one room to a floor. In the year 1250 one of the first "zoning laws" was passed, limiting all private building to fifty braccia (123 feet) and requiring that all buildings then exceeding that height be reduced to it. This is the equivalent, in height, of a ten- to twelve-story walk-up.

This terrific congestion was due to the fact that living, manufacturing and trading in the early city had to take place, to a very large extent, within the walls. These walls formed a barrier to natural expansion.

As the need for protection diminished a great deal of building spread beyond the area of the original cities. This started to siphon off extremely high land values within the walls as the value of land diminishes as the intensity of its use declines. However, barriers still existed even after the walls were leveled in the length of time it took to travel from home to business or from home to shop. Until the advent of rapid transportation the practical area of a city was constricted by this time factor. It seems that the great mass of people will not spend more than an hour in traveling to or from work. When this traveling was done on foot the area of a city was very small. The use of private horse-drawn vehicles extended the more exclusive residential districts beyond the practical limits of most of the middle class workers. The advent of mass transportation, first in horse cars, later in steam and electric cars and trains, extended still farther the practical limits of the city. Prior to gasoline rationing, the private automobile abolished the time limitation to a still greater extent, until it was not at all unusual for a man's business to be fifteen or twenty miles from his home. In the post-war period there is no probability that the distance a person will travel in an hour or less will shrink and considerable chance that it will increase greatly. The decentralizing factor of rapid transportation will still be operating.

A good example of the effect on land values of rapid transportation is shown by figures available on St. Louis. In 1868, before rapid transit of any sort was available, the City of St. Louis ordered appraisals of the cash value of a large number of parcels of ground in the city as it existed then. These appraisals were made by the three leading real estate operators of that time, and their values are a matter of record today. Fortunately, from the standpoint of this study, a very complete perspective drawing of all buildings then standing in St. Louis was published in 1876, and it is possible on these perspective drawings to locate all of the lots on which these appraisals were

made. Even a casual study of this material will show that in 1868 the average residential site close-in had a cash value per front foot of approximately double the value of comparable sites today, in spite of the fact that the purchasing power of money at that time was approximately double the present level and the street improvements, curbs and sidewalks were not comparable to those furnished today at the lower price. Clearly the higher value at that time was due to a locational advantage which does not exist today.

The reason that rapid transportation affects land value for residential use as much as it does is the tremendous increase in land area as the radius of a circle increases. A town roughly circular in shape a mile in diameter contains 504 acres. If it has a density of 15 persons per acre it would contain 7560 persons. If the radius of the city is increased by one-half mile the city will now contain 2010 acres, or practically four times the original area. At the same density per acre it will now house 30,150. If another half mile is added to the radius the area will be 9050 acres. At 14 persons per acre there is now room for 135,750. In the average city, street and transit development makes additional area available faster than the population increases. As long as more land is available than can be used none of it will have a value much greater than the cost of development unless it has a special locational advantage due either to natural features or to proximity to neighborhoods carrying a prestige value.

Since high land values for residential use were a result of congestion, rapid transit has destroyed them, and they cannot be restored. Frederick von Wieser, one of the leading economists of the Austrian school, in his Theory of Social Economics, published in 1914, said "the most effective means of depressing (residential) rents is the multiplication and improvement of urban transportation facilities for these greatly enlarge the available sections."

In my opinion the only increases which can be expected in the values of residential properties will not be due to an increase in land values but to an inflationary increase in construction costs. Of course, if the building rents are now severely depressed due to some temporary condition, such for instance as local unemployment in areas not having war contracts, some increase can be expected.

One other decentralizing factor for residential property is the obsolescence of existing buildings. Buildings lose their desirability as quality housing long before they lose their entire usefulness as shelter. As their economic value is considered greater than the value of the lot, new residential building is generally done on land not previously developed.

The problem of decentralization is totally different as it applies to business properties. It is true that with the spreading out of cities some of the shopping will follow population and the downtown district will lose in the percentage of the city's business which it does. This is particularly true of food items, of some clothing items and of a great deal of miscellaneous shopping. On the other hand, well-located stores in the downtown district are now accessible to a far larger population and will draw customers not only from the city itself but from surrounding smaller cities. The result will be that over a period of years, everything else being equal, the very best locations in the downtown district will get better and the mediocre locations will get worse. Sometimes this trend is further confused by the fact that the entire retail district is shifting rapidly.

Of course for the duration of the war the decentralizing factors in many cities have been reversed temporarily because of the contraction of rapid transit. As I see it, however, this is a temporary reversal. The causes of decentralization are too basic to be halted permanently. After the war decentralization will again reshape our cities, destroying values due to congested land use in all places where congestion does not serve an economic purpose.

APPRAISAL BULLETIN

PUBLISHED IN THE INTERESTS OF REAL ESTATE ANALYST SUBSCRIBERS BY

REAL ESTATE ANALYSTS, INC.

Real Estate Economists, Appraisers and Counselors

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Roy Wenzlick, Ph.D.
Editor

THREE VALUES

ON account of the many requests from clients throughout the country for information concerning appraisal problems, we have decided to present a series of bulletins on appraisal fundamentals and appraisal methods which we hope will be of benefit to all of our clients. When appraisal details are given for specific types of properties, such appraisals will be selected from our records of thousands of actual appraisals made either in the St. Louis territory or in other parts of the country.

We have confined our studies to urban properties as we do not believe our appraisal experience on agricultural and mineral properties has been broad enough to contribute materially to the information and technique now available in that field.

Definitions of terms will be kept to a minimum and will be included only when they are considered essential for proper explanation. The Terminology Manual of the American Institute of Real Estate Appraisers is the most complete work on the definitions of terms commonly used by the modern appraiser.

Appraising is an ancient art which comprises the assignment of values to properties by estimate or opinion. All transactions in our present economy result in prices but values are never revealed in any market. Because of this the appraiser is compelled to estimate or form his opinion of values from all significant factors and the prices actually established.

THREE KEY VALUES

The prices with which the real estate appraiser is most vitally concerned are established in three distinct markets, namely: the construction market, the rental market and the exchange market. These three markets determine the price or cost of production, the rent or price of use and the price in exchange or market price. From the prices established in these three markets the appraiser possesses the basis for determining **MAXIMUM VALUE, VALUE** and **MARKET VALUE.** The appraisal of all types of real properties involves all of these three values.

Maximum Value, which includes the sum of the value of the land for its highest and best use, the reproduction value or cost of the improvements and other unique values (such as historic values, etc.), represents the ceiling above which **VALUE** cannot go, based on the theory that the value of any property cannot be greater than the cost to replace it.

Value, either without designation or with such designations as value for use, investment value, justified value, etc., is the most important item which

the appraiser is called upon to appraise. VALUE is described as a capitalized sum or the present value of all future benefits and returns which can reasonably be expected during the remaining useful life of a property. VALUE is sometimes described as the price at which a seller would be justified to sell or a buyer would be justified to buy, regardless of whether actual market conditions would warrant a price below or above VALUE. With certain special use properties, such as public buildings, churches, schools, etc., and with certain other properties whose use is not readily measurable by rent, VALUE is determined from MAXIMUM VALUE less the depreciation accrued during the expended useful life of the property. VALUE, whether determined from cost or from income, is the same in amount.

The third important value, Market Value, represents the price that the property would bring as the result of a voluntary sale if the property were placed for sale on the market.

Of these three values determined from prices in three different and distinct markets, VALUE and MARKET VALUE are the most important and fundamental in concept. The former is the worth of a property from use and the latter represents its worth to command money in exchange. MAXIMUM VALUE is of great importance, being a base or key value from which VALUE is often calculated; it is of more importance to the appraiser, however, than to the public.

MAXIMUM VALUE

In the determination of MAXIMUM VALUE, the appraiser must determine (a) the value of the land for its highest and best use and (b) the estimated cost to reproduce the existing improvements under existing market conditions.

HIGHEST AND BEST USE

The highest and best use of the land is its most profitable use or that use which would create the greatest net return applicable to the land. In a great majority of cases, the actual development and use of the land is found to be its highest and best use. This is readily discernible to the experienced appraiser. In some localities that are undergoing a transition from an actual to a higher use, considerable study is necessary before the appraiser can reach a logical conclusion.

There are several questions which the appraiser must answer to his own satisfaction before appraising land for a use higher than its actual use: (1) Is the land restricted in its use by deed or by zoning laws? (2) Does the proposed higher use appear to be the most logical and the most profitable use of the land after a detailed study of the location and its environment? (3) Do population growth or probable shifts in population and the surplus of like use space in the locality warrant the development of the land for this higher use in the immediate future or would they indicate such higher use in the distant future? (4) Do current sales of similar land tend to justify the appraised value of the land for such higher use? Prices obtained in some period in the past or the present asking prices are not a true indication of present value. In general, only conclusions which are based upon reasonable probabilities should be drawn; the consideration of possibilities leads to wishful thinking. Highest and best use will be discussed in greater detail in specific appraisals.

REPRODUCTION COST

The second item of MAXIMUM VALUE is the cost to reproduce the existing improvements or the cost to construct proposed improvements. The cost which the appraiser must determine is that estimated cost which would represent the lowest and best bid, had several competent contractors submitted bids to reproduce the existing improvements in the existing market. It is proper to add to construction costs such items as architect fees, taxes and insurance during construction, financing fees, etc., in estimating reproduction cost. Marketing costs are usually not included as a part of reproduction cost, but in theory the inclusion is justified. The greater his experience and the closer his contacts with material and labor costs, the more accurate will be the appraiser's estimate; however, it is well known that competent contractors' bids on identical plans and specifications in the same market show a large spread between the high and the low bid.

METHODS OF ESTIMATING

There are several methods in estimating reproduction cost. The most accurate method is that employed by the contractor who takes off bills of materials, estimates hours of labor and secures bids from subcontractors on those parts of construction which require specialized skill, such as plumbing, heating, tile work, plastering, etc. This is a lengthy and expensive method and cannot profitably be used by the appraiser for general practice in his determination of MAXIMUM VALUE.

The method next in accuracy is the unit cost method whereby the finished quantity of each type of construction is figured (such as foundation walls and brick walls, floors, partitions, etc.) and a unit cost applied to each. This is also a slow method and requires the appraiser to keep accurate records of unit costs for many types of construction. It is quite expensive if the appraiser uses this method exclusively in his appraisal work; however, it becomes necessary to use this method in part when properties vary from normal types.

One of the better books on the above two methods is the Building Estimator's Reference Book published by Frank R. Walker Company, Chicago, Illinois.

A short-cut method is the application of a cubic foot cost to the actual cubic content of the building. The degree of accuracy in this method depends upon the care used in measuring the property and in estimating cubic content and upon the accuracy and appropriateness of up-to-date cubic foot costs possessed by the appraiser. The American Institute of Architects has defined the standard cubic content of a building as follows: "The cubic content (cube or cubage) of a building is the actual cubic space enclosed within the outer surface of the outside or enclosing walls, and contained between the outer surfaces of the roof and six inches below the finished surfaces of the lowest floors." This definition requires the cube of dormers, bays, penthouses, vaults, pits, enclosed porches and other enclosed appendages to be included as a part of the building. It does not include the cube of outside steps, cornices, parapets, open porches, balconies, fire escapes, paved terraces, etc.

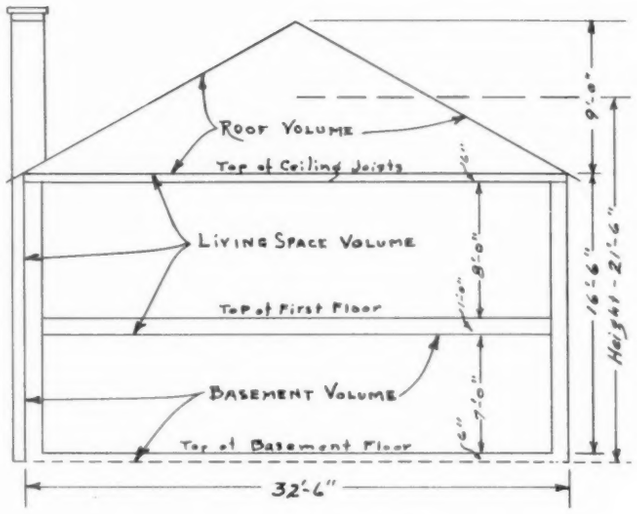
Another short-cut method is the application of a square foot cost to the number of square feet of building area. This method involves only two dimensions (width and depth) and, therefore, the unit square foot cost must vary with the height as well as with the quality of construction. The chance of error is too great, except with uniform height industrial buildings, to recom-

mend its general use.

APPLICATION OF CU. FT. COST

The application of the cubic foot cost method to a one-story and basement brick bungalow containing five rooms and bath is given below together with a floor plan and vertical section.

Area of bldg. 32'-6" x 36'-7"	= 1189 sq. ft.	
Chimney at ground 9" x 5'-6"	= 4 sq. ft.	
Total Building Area	= 1193 sq. ft.	
Ht. Finished bsmt., flr. to top of ceil. joists		16'-6"
Roof, Gable, ½ of 9'-0"		4'-6"
6" below bsmt. floor		6"
		21'-6"
Total 1193 x 21'-6"		25,700 cu. ft.
Adjustment chimney above roof		36 cu. ft.
Total Cubic Content		25,736 cu. ft.



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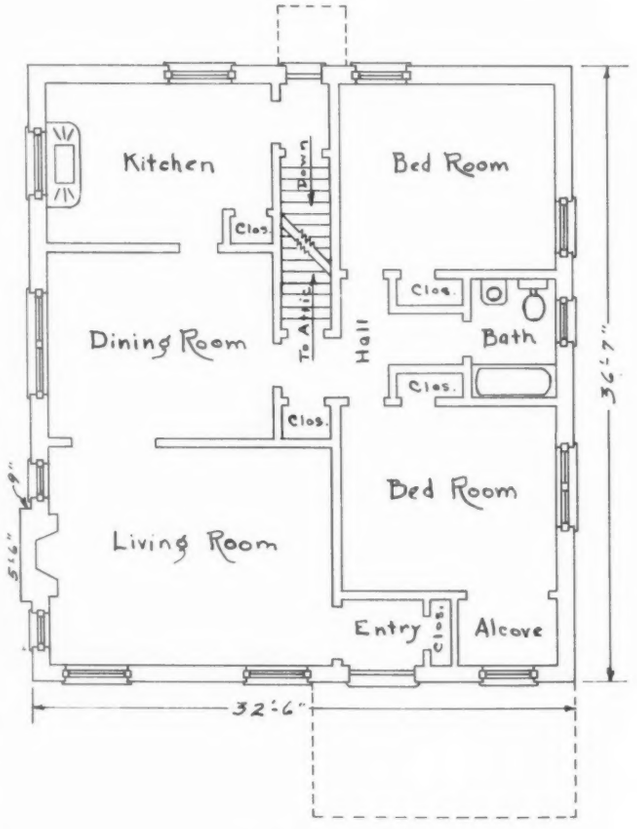

-FLOOR PLAN-

The roof as built was a gable type running the full depth of the bungalow. Its cubic content is determined by multiplying the building area by one-half the roof height, or 4'-6". If the roof had been built pyramidal shaped, (sloping from all four sides and meeting at a point) the building area should be multiplied by one-third the height, or 3'-0". If a combination of gable and pyramidal shaped roofs had been built, the building area of each type should be multiplied by one-half and one-third the height respectively.

The measurement of the building and the calculations of its cubic content require no special skill. In most cases the height of the building is the most difficult dimension to secure. (Counting the number of bricks, shingles or siding in the gable end is often an aid in estimating roof height.) Occasionally a complex roof

design of hips and valleys requires time and study to secure the necessary data. No special skill is required in making calculations as the mathematics involved are simple arithmetic and a slight knowledge of trigonometry and geometry.

With proper care in taking measurements and making calculations, the experienced appraiser should be able to determine the quantity of any building as measured by the standard cubic content with a possible error not exceeding 1%.

VARIATION IN CONSTRUCTION TYPE COSTS

There are no reliable data on cubic foot costs covering all types of properties to which the appraiser can readily refer. Even for a particular type of property, such as the bungalow, there is no fixed cubic foot cost for all bungalows of this general class. In illustration, the brick bungalow on page 208, with a cubic content of 25736 cubic feet, was actually built in the St. Louis territory in 1936 at a cost of $5,090, exclusive of garage, porches, walls, drives, etc., or at a cubic foot cost of 19.8¢. From the plans and specifications of this house and detailed cost data it was possible to divide the total cubic content into the following three sections and allocate the cost to each section. These results were obtained:

	Cu. Ft.	Cost	Unit Cost
Basement volume from 6" below bsmt. flr. to bottom 1st flr. joists.	8,950	$ 840	9.4¢
Living space volume bottom 1st flr. joists to top 1st flr. ceiling joists, including heating, plumbing, electrical systems, etc.	11,411	3,637	31.8¢
Roof volume, top ceiling joists to roof surface. .	5,375	613	11.4¢
TOTAL.	25,736	$5,090	19.8¢

The great difference in cubic foot costs for each different type of cubic content within the one bungalow is significant. A different proportion of these three volumes in another bungalow of the same construction quality would give a different over-all cubic foot cost than the cost above. From these three volumes it is possible to estimate roughly a cubic foot cost of 25.3¢ for this bungalow without basement or to arrive at a different over-all unit cost if partial basement were used or if roof height were increased. The illustrations given make it quite evident that the appraiser cannot use a uniform cubic foot cost for all properties of a particular type of same construction quality.

It has been our experience that the appraiser must establish his own cubic foot costs from data gathered on jobs actually constructed. Actual costs secured from contractors on several types of properties should be analyzed, studied and kept for ready reference as base or key costs from which adjustments for other properties can be made. The appraiser should keep in close contact with the construction market, should be able to estimate construction costs from plans and specifications of proposed structures and of existing structures, should know kind and quality of building materials and construc-

REAL ESTATE ANALYSTS INC

APPRAISAL WORK SHEET - II
CONSTRUCTION COST

APPRAISAL Nº _____

ADDRESS OF PROPERTY St. Louis County, Mo. AS AT June 1936

MADE FOR John Doe MADE June 1936

MINOR IMPROVEMENTS ON LAND

WALKS	Concrete 190 SQ FT @ 15¢	30.00		
DRIVES	SQ FT @			
FENCES	L F @			
SODDING	SQ YDS @			
WALLS				
GARDENS				
SHRUBS				
ORCHARDS				
MISCELLANEOUS	Concrete ash pit	25.00	$	55.00

MAIN IMPROVEMENTS PROPOSED ☐

DESCRIPTION A one-story and full basement brick bungalow with frame interior with five rooms and bath on one floor and unfinished attic reached by scuttle hole. One-car frame garage at rear of lot.

TYPE Bungalow AGES New

SPECIFICATIONS

SIZE		CONSTRUCTION			
BSMT. full	BLDG. FRAME -	SEPTIC TK. none			
PENT HS. none	FOUND'NS 12" reinf. conc.	ROUGH PLBG. modern			
STORIES 1	BSMT. FL. concrete 3½"	PLBG. FIXT. modern			
STORES -	EXT. WALLS brk. tile-13"	TYPE HEAT forced warm air			
OFFICES -	ROOF asphalt shingles	HEAT'G. PT. standard make			
GARAGES 1-car	METAL WK. copper	MECH. STKR. none			
DW. UNITS 1	INT. PART'NS plaster	OIL BURN -			
ROOMS 5	SPEC. WALLS -	GAS FIRED -			
EFF. RMS. -	INT. TRIM yellow pine	WATER HTR. gas automatic, 20 gal.			
KITCHENS 1	DOORS 2 panel-1 3/8" gum	AIR COND. blower and filters			
KITCHENETTES -	FLOORS cl.pl.r.oak-7/8"	INSUL'N. 4" Rockwool ceil.			
BATHS 1	SPEC. FLS. tile in bath	SPRINKLER -			
LAVATORIES -	TILE wsct.-bath & kit.	SKYLIGHTS -			
HEAT'G PLTS. 1	CEIL'S. plaster	ELEV. -			
HEIGHTS-	HDWE. A	FIRE ESC. -			
BSMT.	ELECT. WK. modern	REFRIG. -			
MAIN	ELECT. FIXT. A	GAS STOVES -			
ROOF	SCREENS copper	BEDS -			
BLDG. 21'-6"	W. STRIP metal	CAB. & FANS built in			
BLDG. AREA 1193 SQ FT	AWNINGS none	FRONT POR. 8'x10' concrete	75.00		
	STOREFRONTS -	REAR POR. 4'x 4' concrete	10.00		

REPRODUCTION COSTS

MAIN BLDG. COST: CUBIC CONTENT 25736	CU FT @ 19.8 ¢	5090.00		
" " " " "	CU FT @ ¢		$	5,175.00
SEPARATE GARAGE: NO. CARS one UTILITIES: WATER ☐ SEWER ☐ LIGHT ☒ HEAT ☐				
WALLS frame ROOF comp. FLOOR concrete SPCL. DOORS - @				
COST OF GARAGE: AREA 200 HT. 10 CUBIC CONTENT 2000	CU FT @ 10.0 ¢		$	200.00
OTHER IMPROVEMENTS			$	--
CONSTRUCTION COST NEW			$	5,430.00
ARCHITECT'S FEES, FINANCING, INTEREST, OTHER COSTS	5.7%		$	310.00
REPRODUCTION COST NEW			$	5,740.00

CODE:- G-GOOD; GA-GOOD TO AVERAGE; A-AVERAGE; AP-AVERAGE TO POOR; P-POOR

BUILDING COSTS OF A STANDARD SIX ROOM FRAME RESIDENCE BUILT IN SAINT LOUIS

Costs are grouped into four classifications of material, four of labor and three of overhead. A further breakdown of these groups is given in detail below. Columns of the table are numbered, and a brief description of the items included in each is given in the paragraphs below. Paragraphs are numbered to correspond with the columns described.

Group A:
(1) Masonry: Cement, sand, gravel, quick lime, hydrated lime, hard wall plaster, face and common brick, fire brick, flue lining.
(2) Tile Work: 4¼ x 4¼ wall tile, ceramic floor tile, cap and base.
Group B:
(3) Unfinished Lumber: Columns, beams, floor and ceiling joists, interior and exterior studs, rafters, bracing, etc.
(4) Finished Lumber: Sub-flooring, sheathing, beveled siding, finished floors, asphalt shingle roofing, roofing felt, tar paper, shutters, etc.
(5) Millwork: Windows, doors, trim, kitchen cabinet, stairs.
Group C:
(6) Heating: Boiler, insulating jackets, fittings, tools, pipes, connections, valves and radiation.
(7) Plumbing: Soil pipes and connections, stack, water pipe and connections, lead oakum and bathroom fixtures; hot water heater and tank to be furnished by others.

Building material costs are indicated by the letter M; corresponding labor items, by the letter L.

*No labor items are shown in Column 10, Building Hardware, as they have already been included in Column 5, Millwork.

Group D:
(8) Sheet Metal: Galv. iron (present) gutters, downspouts, flashing.
(9) Electrical Work: Main switch, BX cable, switch boxes, receptacles, transformer, etc. No fixtures included.
(10) Nails and Hardware: Common and wire nails, bolts, damper, ash doors, finish hardware.
(11) Painting: White lead, linseed oil, turpentine.
(12) Miscellaneous: Metal and wood laths, corner bead, insulation.
Group E:
(13) Overhead and profit of subcontractors in plastering, metal work, heating, plumbing, electrical work and tile work.
(14) General contractor's profit.
(15) Missouri sales tax (now 2% on materials), old age and unemployment tax (federal and state), liability and employees' compensation insurance, fire and tornado insurance, completion bond.
(16) TOTAL CONSTRUCTION COST.

	GROUP A				GROUP B					GROUP C				GROUP D								GROUP E			TOTAL
YEAR	(1)		(2)		(3)		(4)		(5)	(6)		(7)		(8)		(9)		(10)	(11)		(12)		(13)	(14)	(15)	(16)
	M	L	M	L	M	L	M	L	M	L	M	L	M	L	M	L	M		M	L	M	L				
1913	$343	$388	$ 24	$13	$218	$101	$428	$134	$350	$121	$152	$136	$231	$110	$65	$12	$36	$49	$59	*	$16	$ 64	$ 51	$18	$248	$337	$132	$3833
1914	362	388	24	13	212	101	415	134	349	121	147	136	248	110	59	12	32	49	59		16	64	50	18	248	337	132	3833
1915	360	388	24	13	189	108	373	145	329	131	152	144	249	116	68	12	38	52	64		17	69	48	19	257	337	135	3839
1916	366	396	24	13	224	108	438	145	363	131	203	144	309	116	101	12	55	52	86		22	69	59	19	295	375	142	4269
1917	456	413	25	14	258	109	500	146	396	132	244	152	359	122	108	12	59	54	110		26	69	69	19	325	418	152	4749
1918	539	421	25	15	292	118	570	158	449	143	322	152	359	124	95	14	52	54	118		30	75	73	21	346	457	163	5185
1919	624	453	25	15	519	128	1008	170	729	154	290	160	349	130	83	15	45	57	113		31	81	112	23	342	566	187	6409
1920	742	463	28	17	607	183	1189	243	1030	220	305	184	372	150	83	21	46	66	143		36	116	132	32	366	677	227	7678
1921	674	501	25	18	479	188	920	250	506	225	273	192	460	156	64	22	35	69	94		30	119	104	33	372	581	215	6604
1922	609	506	25	18	362	174	703	232	571	209	258	204	433	166	64	20	35	73	79		28	111	81	31	370	536	205	6102
1923	633	576	25	21	410	200	793	268	551	242	267	227	430	184	70	23	38	81	94		28	128	90	36	407	582	228	6634
1924	618	703	251	108	401	246	779	328	492	296	274	277	388	224	64	28	35	100	97		35	156	87	44	527	656	274	7487
1925	606	684	251	108	375	251	732	335	472	302	273	255	381	207	68	29	37	92	89		37	159	83	45	508	638	267	7280
1926	566	653	251	108	379	240	732	320	432	288	264	244	381	197	69	27	37	87	86		36	152	83	43	499	617	254	7045
1927	565	621	251	108	354	228	715	304	358	275	251	184	395	159	67	26	37	66	84		33	145	80	41	469	582	237	6635
1928	563	541	208	97	406	184	644	244	377	220	261	184	382	151	71	21	39	66	85		31	116	74	32	438	544	213	6194
1929	565	541	185	97	360	184	687	244	384	220	270	184	385	151	82	21	45	66	89		33	116	71	32	438	545	213	6210
1930	474	422	185	97	340	135	655	181	312	164	251	140	341	114	71	15	39	50	72		33	87	211	24	380	479	175	5449
1931	411	342	155	57	313	108	594	145	254	131	226	112	322	91	58	12	32	40	61		31	70	198	39	317	412	146	4680
1932	438	342	139	51	268	108	532	145	269	131	210	112	286	91	50	12	28	40	60		28	70	199	39	295	395	142	4482
1933	457	342	130	51	355	108	562	145	344	131	208	112	270	91	52	12	28	40	54		26	70	214	39	291	413	146	4693
1934	540	342	122	51	439	108	713	145	494	131	234	112	279	91	55	12	30	40	63		26	70	222	39	299	466	154	5279
1935	508	422	111	67	399	135	638	181	523	164	236	140	292	114	43	15	24	50	62		26	87	229	47	300	481	174	5469
1936	506	490	111	67	364	159	655	209	494	188	255	160	301	131	50	19	28	57	59		27	98	221	53	344	505	239	5791
1937	503	512	111	67	395	186	742	245	578	221	247	160	326	141	54	22	29	57	64		31	104	226	53	363	544	310	6291
Ja 1938	500	428	103	67	369	162	693	210	591	189	255	160	313	134	48	19	26	57	68		29	88	223	42	344	512	315	5946
Ap 1938	500	428	103	67	343	162	633	210	592	189	231	160	305	134	45	19	25	57	68		27	88	222	42	335	490	310	5786
Jl 1938	516	428	103	67	343	162	631	210	549	169	239	160	285	134	45	19	25	57	64		27	88	221	42	328	489	301	5703
O 1938	516	417	103	67	343	142	631	185	550	167	239	160	283	134	48	17	26	57	64		28	88	221	42	326	484	296	5634
Ja 1939	515	417	103	77	353	142	642	185	525	167	239	160	284	134	49	17	27	57	64		28	88	192	42	329	482	297	5615
Ap 1939	510	561	103	77	345	164	644	219	509	198	239	160	267	134	48	19	26	57	64		29	116	192	61	348	507	329	5926
Jl 1939	516	561	103	77	346	164	639	219	508	198	239	160	271	131	46	19	26	57	64		29	116	191	61	346	507	329	5923
O 1939	510	561	103	77	395	164	713	219	509	198	239	160	285	131	52	19	29	57	65		30	116	193	61	353	522	335	6096
Ja 1940	510	538	103	77	374	158	679	215	567	195	236	160	282	131	58	17	32	57	65		30	93	193	61	352	516	327	6005
Ap 1940	510	538	103	77	371	158	651	215	566	195	236	160	285	131	63	17	35	57	65		30	93	193	61	352	516	327	6004
Jl 1940	510	538	103	77	371	158	651	215	566	195	236	160	285	131	63	17	35	57	65		30	93	193	61	352	516	327	6004
Ag 1940	510	556	103	77	415	158	735	215	604	195	236	160	285	161	63	17	31	57	66		30	93	201	69	361	540	342	6278
S 1940	510	556	145	77	448	158	736	215	604	195	236	160	301	161	63	17	31	57	66		30	93	195	69	379	551	345	6400
O 1940	510	542	145	86	494	162	763	218	628	197	254	160	294	161	63	17	31	57	66		32	93	203	75	385	564	351	6551
N 1940	510	542	145	86	493	162	805	218	646	197	254	160	295	161	62	17	27	57	66		32	93	203	75	385	569	351	6611
D 1940	510	740	145	86	493	182	805	243	645	219	242	160	266	161	62	19	27	58	66		32	104	203	78	380	585	375	6786
Ja 1941	515	640	145	86	493	182	808	243	645	219	242	160	266	161	62	19	28	58	67		33	104	203	78	380	585	375	6797
F 1941	515	639	145	86	493	182	753	243	633	219	251	180	269	149	62	19	28	63	69		33	131	203	78	387	583	376	6789
Mr 1941	487	639	145	86	465	182	748	243	633	219	251	180	269	149	62	19	28	63	69		33	131	202	79	388	577	374	6721
Ap 1941	487	639	159	86	463	182	771	243	633	219	251	180	274	149	62	19	28	63	69		33	131	202	79	396	581	376	6775
My 1941	508	539	159	86	448	197	732	265	635	240	250	180	274	149	62	19	23	63	72		33	131	205	79	396	585	381	6811
Je 1941	510	639	159	86	441	201	785	268	635	242	250	180	274	149	73	19	25	63	72		33	131	203	79	396	591	384	6888
Jl 1941	510	650	159	86	553	220	802	279	635	252	250	180	274	149	90	19	27	63	72		34	131	220	79	396	613	397	7142
Ag 1941	510	650	159	86	574	220	845	279	689	252	262	180	292	149	90	19	27	63	72		34	131	220	79	406	629	400	7317
S 1941	514	678	159	86	563	226	865	303	689	274	262	200	289	187	106	29	33	72	79		35	131	221	79	433	649	422	7584
O 1941	514	678	159	86	544	226	861	303	689	274	262	200	289	187	106	29	34	72	80		35	145	227	79	433	650	422	7584
N 1941	514	678	159	86	535	226	866	303	689	274	262	200	289	187	106	29	39	72	79		35	145	227	79	433	650	422	7584
D 1941	514	678	159	86	535	231	847	305	689	275	262	200	298	187	106	29	44	72	79		35	145	229	79	434	651	423	7592
Ja 1942	514	696	175	86	536	231	854	305	689	275	262	200	314	187	64	29	48	72	79		35	145	229	81	431	653	423	7617
F 1942	514	696	175	86	540	231	868	305	715	275	262	200	324	187	64	29	49	72	79		37	145	229	81	433	660	424	7682
Mr 1942	520	696	175	86	540	231	874	305	715	275	262	200	323	187	64	29	49	72	79		38	145	229	81	433	661	424	7695
Ap 1942	520	696	175	86	547	231	876	305	715	275	273	200	317	187	64	29	50	72	79		38	145	229	81	433	663	424	7712
My 1942	520	709	175	86	540	233	874	307	715	276	273	200	317	198	72	29	50	86	79		38	145	229	81	442	668	428	7772
Je 1942	520	696	175	86	540	233	874	307	715	276	273	200	317	198	72	29	50	86	79		38	145	229	75	436	668	428	7747

tion details and should recognize the class of workmanship that is called for in specifications or that is used in an existing structure.

Properly kept cost data, intelligently used, should permit the experienced appraiser to estimate reproduction cost with an error not exceeding 5%. During the examination of the property the appraiser must gather all necessary information concerning the kind and quality of the construction so that he may estimate the cubic foot cost applicable to the particular building in question.

On page 210 is shown our Work Sheet II covering the aforementioned bungalow. Most of the data necessary to estimate reproduction cost are briefed on this form. The total reproduction cost is determined for the year 1936 in the sum of $5,740. This cost includes garage, front and rear concrete stoops, concrete walks and financing fees, etc.

CHANGES IN MARKET COSTS

Because of changing market conditions of both materials and labor, construction costs are constantly undergoing change. The cubic foot cost of the aforementioned brick bungalow had increased from 19.8¢ in 1936 to 25.3¢ per cubic foot by June 1942, and the total reproduction costs, as estimated on Work Sheet II, from $5,740 to $7,295.

The regular check on changes in construction costs due to changes in the construction market is an important part of the routine work of the appraiser. The table on page 211 shows the fluctuations of construction costs of a two-story frame house from 1913 to June 1942. The costs are estimated monthly on this "guinea pig" house from prices of both materials and labor and from bids from subcontractors on all special items such as heating, plumbing and electrical systems, etc. This is the most accurate method of estimating cost of construction mentioned on page 207. It will be noticed that the cost of this house increased from $5,791 in 1936 to $7,747 in June 1942, or 33.5%. This is excellent material when used as an index to indicate the fluctuations of construction costs of a two-story frame house. It should be noted that while the frame house increased 33.5% from 1936 to June 1942, the cost of the brick bungalow increased 27.0% during the same period. This is because lumber had a greater increase in price than other building materials.

If it is assumed that the land on which the bungalow was built had a value of $1,500 in 1936 and also in June 1942, the **MAXIMUM VALUE** of the bungalow in 1936 was $6,930 and in June 1942, $8,795, regardless of the year in which the bungalow was built.

If there were no depreciating influences in connection with the property itself, or with its environment, these **MAXIMUM VALUES** for the property built new in 1936 and in June 1942, would represent the **VALUES** of the property at those dates. The method used above, while applied to the small bungalow for purposes of illustration, is the same for all types of properties regardless of size.

R. B. Kissack M.A.I.

APPRAISAL BULLETIN

2

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Roy Wenzlick
Editor

ACCRUED DEPRECIATION

DEPRECIATION

In Bulletin No. 1 MAXIMUM VALUE was briefly described and was determined for a specific brick bungalow of five rooms and bath. A MAXIMUM VALUE of $8,795 was estimated for this bungalow for June 1942, regardless of whether it was built at that date or at some former date. If built in June 1942, the VALUE of the bungalow would be equal to its MAXIMUM VALUE, unless there were found some detrimental influence which permanently impaired the full useful purpose for which it was built.

The fact that the VALUES of the vast majority of properties are less than their MAXIMUM VALUES requires a study of the nature and causes of these losses which in real estate appraising are designated depreciation.

Depreciation can be defined as the permanent loss in MAXIMUM VALUE resulting from adverse influences which permanently impair the physical, functional or economic status of a property. This permanent impairment of full use as measured by MAXIMUM VALUE is reflected in permanently lower present and expected net income caused by lower rents or higher expenses or by both. The term "permanent" is used in the sense that depreciation is not a temporary condition which will correct itself with the passage of time, but is of such a nature that it requires the expenditure of capital and labor to lessen or partly remove it by remodeling, rehabilitation and modernization of the property itself, and in some cases by restoring the surrounding neighborhood.

CLASSIFICATION

There is some divergence of opinion in the classification of the causes of depreciation. The terminology manual of the American Institute of Real Estate Appraisers groups the causes under the following headings: (a) Deterioration; (b) Functional Obsolescence; (c) Economic Obsolescence. While it is realized that any particular classification is not of vital importance, we feel that the following classification permits a better understanding and fits all types of properties in the field of commercial appraising. All of these causes of depreciation are economic in that they lower desirability and reduce present and expected net income. The classification used in these studies is briefly outlined as follows:

PHYSICAL DETERIORATION

1. Faulty Construction. Faulty subsoil or improper construction in some cases results in sudden deterioration of a serious nature which is often difficult to remove. Many homes have suffered from this subsoil defect after many years of successful service. Cheap original construction is the cause of high operating and maintenance costs and results in rapid deterioration.

2. Wear and Tear from Time, Use and the Action of the Elements. Depreciation from normal wear and tear and from the action of the elements is a slow process with well constructed properties when properly maintained. There are many homes in this country well over 100 years old and many in Europe several centuries old which are still in use. The physical lives of well constructed properties when properly maintained would be very long if deterioration were the only adverse influence. Age alone is not the controlling factor in estimating the amount of physical deterioration.

OBSOLESCENCE

1. Disused Type or Style. Progress in construction techniques and changes in architectural design and treatment may cause buildings of some former period to lose desirability. Freakish designs or fads of the past become out of date in a comparatively short time, while some of the earlier types of homes, such as Colonial, because of their simplicity, beauty and efficiency are still considered modern and retain their desirability.

2. Excess Capacity. Excess in structural capacity or in the layout and capacity of usable space is a cause of obsolescence. Thick bearing walls, excessive size of rooms, high ceiling heights, overly wide corridors and excessive lobbies, many-storied industrial plants and other kinds of past excess layout and capacity are undesirable in comparison with modern design. Such excess capacities are costly to reproduce, command lower rents and necessitate higher property expenses.

3. Obsolescent and Inefficient Equipment. Obsolescent equipment may be undesirable because of appearance, inadequacy to modern needs or inefficient operation when compared with the modern. The appearance of heating, plumbing, wiring and elevator equipment often is the most noticeable earmark of obsolescence. In some cases the lack of air conditioning, insulation, etc., is becoming a cause of obsolescence.

The three foregoing items of obsolescence are features which in a past period were considered proper and in keeping with the development and design of that time. Changes in taste and needs and advancements in methods, designs and efficiency cause the old to become out of date and undesirable.

The next three items of undesirable design probably could be considered as factors of obsolescence but are treated separately because they are not the result of out-of-dateness but are due to properties' being poorly conceived as to layout, adequate livability and salability. These features may be found in new as well as in older properties.

UNDESIRABLE OR INADEQUATE USE

1. Inadequate Land Layout. When the position of the improvements in relation to the site provides inadequate front, rear or side yards with air space between adjoining properties insufficient for their type, there is a resulting loss in value due to misplacement. Lack of parking space for certain types of retail outlets and theaters lowers the desirability of such properties. Washington, D. C. now requires off-the-street parking space on all new residential construction.

2. Inadequate Livability. Inadequate livability often is found in new properties. Such features as inconvenient arrangement of space, lack of proper ventilation, insufficient closet space and wall space and all other features

of poor design which make the property less desirable to live or work in, and thereby reduce rent, are factors of inadequate design.

3. Inadequate General Use. Inadequate general use is applied to those parts of properties which were built to gratify individual taste and which cannot be rented or sold to others although highly prized by their owner. Expensive fixtures, costly decorations, monumental features, unusable space, etc., often referred to as "individual whims," are subject to great or complete loss from depreciation.

Likewise, some special-use properties which become of no further use to their owners often have no general use and, therefore, lack rentability and suffer great loss in value from inadequate general use. Often the cost to remodel such properties for general use is greater than their proposed use would warrant.

The loss in value due to inadequate capacity which applies principally to public and semi-public properties, such as thoroughfares and bridges, municipal utilities, service buildings, equipment, etc., is used more in the determination of fair value for rate-making purposes, which is not covered in the present series of bulletins. When such properties are sold in the market they are treated as special-use properties.

4. Inadequate Land Use. When the land is improved for a use nonconforming or inadequate to the highest and best use for which the land is valued, the improvements suffer loss in value from inadequate land use. Such improvements may be originally misplaced or may become inadequate because of social changes or changes in restrictions. Assessors generally neglect to allow for this loss in appraising assessed values.

The following groups of influences concern not the property itself but the relationship of the property to its environment. When a property has an environment which is detrimental to its type and use, the property suffers loss in desirability. A misplaced improvement, whether originally built in a nonconforming environment or whether the environment has changed and become nonconforming, is often the cause of great depreciation in any type of property.

ADVERSE ENVIRONMENT

1. Inaccessibility. The lack of proper accessibility for particular types of properties causes depreciation of value. Inadequate access to mass transportation, churches, schools, stores and places of employment would be a depreciating influence for the cottage and small bungalow but would probably not affect the more pretentious home. Adequate accessibility necessary to profitable use is a requisite for all types of properties.

2. Adverse Surrounding Uses. The lack of congruity or harmony of properties and uses in a neighborhood affects many properties adversely and is the cause of depreciation. The encroachment of railroads, industrial plants with their odors and noises, and other nonconforming uses is a detrimental influence to most residential use.

3. Adverse Purchasing Power. When a property and its use is incompatible with its surrounding standard of living or purchasing power, it suffers from one of the most important causes of depreciation. The encroachment of

racial types considered objectionable, the advent of families of a lower standard of living in a good neighborhood, constitute the beginning of blight. The pretentious home in a neighborhood with low rental values, the commercial garage on a minor street in a neighborhood with low car ownership, the well constructed office building in an off-location, etc., are properties which are incompatible with the surrounding purchasing power and result in loss in value.

"Accrued Depreciation" is the total portion of MAXIMUM VALUE lost from all depreciating influences which have accrued during the expended useful life of a property. It is distinct for each individual property and is not a function of age. Each property must be studied and the portion of MAXIMUM VALUE lost estimated in each case.

It is realized that this classification is not complete but it does cover most of the causes of loss from depreciation for practically all types of properties in the field of commercial appraising. The appraiser should always designate the exact cause for which he applies depreciation. It is believed that the foregoing classifications permit a more accurate estimate of the kind and amount of depreciation for each particular property.

Accrued depreciation is expressed in dollars and is the amount deductible from MAXIMUM VALUE in order to determine VALUE; this procedure is called the cost approach to VALUE. It will be noticed that depreciation is primarily a loss suffered by the improvements as measured by reproduction cost, because the other two items of MAXIMUM VALUE, namely the value of the land for its highest and best use and other unique values, represent their existing status. It is best to think of loss from depreciation as a part or percent of reproduction cost instead of a dollar amount, since it is quite possible for the percent of depreciation to increase while the dollar amount will decrease when construction costs experience a marked drop in a relatively short period.

Practically all single-family dwellings, also most service properties such as churches, schools, government buildings and other properties whose use is not readily measurable by rent, are appraised solely by the cost approach to VALUE. Some of our courts seem to prefer this method of determining VALUE instead of the income appraoch, which will be discussed in a later bulletin. Assessors use the cost approach almost entirely in fixing assessed values. However, it is considered good appraisal practice to use not only the cost approach but to use both the cost approach and income approach in all appraisals where it is possible to do so.

We realize the brief description of the different kinds of depreciation is inadequate for their application to specific properties. In future bulletins actual appraisals of properties will be given to illustrate the application of the different kinds of depreciation.

R. B. Kissack M.A.I.

APPRAISAL BULLETIN

3

PUBLISHED IN THE INTERESTS OF REAL ESTATE ANALYST SUBSCRIBERS BY

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Roy Wenzlick
Editor

MARKET VALUE

RIGHTS OF OWNERSHIP

The purpose for which VALUE is determined is not a material factor to be considered by the appraiser. There can be only one conclusion reached as to the VALUE of a particular property, regardless of the method used in forming an opinion or the reason for which the appraisal is to be used. VALUE is basic in concept and represents that sum, expressed in dollars, which measures the usability of a property. It represents the estimated economic significance of that first basic right in the private ownership of property whereby the owner is granted the unmolested legal use and the full enjoyment of all benefits and returns springing from such use.

The second basic right of private ownership grants to the owner the discretion to exchange the property for money or for other properties or things considered of value. The estimated economic significance of this second basic right whereby the owner exchanges the property for money is measured by **MARKET VALUE**. It is evident that **VALUE** and **MARKET VALUE** measure the usability and salability respectively of every real property. These two values are basic in the private ownership of all properties and are not synonymous in concept or in meaning. They are as distinct as the cost of production of a commodity and its sale price in the market.

MARKET PRICES

In Bulletin I, **MARKET VALUE** is defined as that price which would result from a voluntary sale if the property were placed for sale in the market. A sale need not be inferred or involved or even be under consideration when the appraiser estimates the **MARKET VALUE** of a property. A market is merely the place or the means by which market prices are established by actual sales between buyers and sellers in open competition. The real estate market is unlike other markets in that each unit of sale is fixed in location and has its own distinct utility; therefore, sales must be made principally in local markets and must be negotiated between buyer and seller for each particular property. Real estate brokers and salesmen are important cogs in real estate markets of exchange in bringing buyers and sellers together and in negotiating sales. Such markets lack dispatch but are well equipped to establish market prices in a reasonable period of time.

Market prices of real properties fluctuate according to the unvarying economic laws of supply and demand in the same manner as all other commodities and services. The supply of real estate is more stable than demand and it takes longer to augment supply when and where demand requires. Supply once provided during favorable periods remains a threatening surplus in unfavorable periods. Demand is much more flexible than supply because it is formed by (1)

desire and (2) the ability to gratify this desire. Therefore, demand expands and contracts as economic conditions enlarge and lessen the ability to gratify desire, although increased desire from population growth is an important factor in increasing demand.

ACTIVITY CYCLES

It was found after a careful check of the records that during the past 92 years alternating periods of active and inactive market conditions have occurred with startling regularity in cycles averaging 18 years in length. The chart at the bottom of the page gives the cyclic changes in the number of voluntary transfers during the past 92 years representing the average of 36 metropolitan areas. Because residential transfers compose the larger part of total transfers the chart represents more closely the variations in residential activity than in other types of properties.The variations in each metropolitan area differ from this average but generally follow the same pattern. The number of voluntary transfers at the peak of activity is about four times the number at the bottom of inactivity. It will be noticed that active and inactive periods continue for many years at a time. During the active periods market prices are generally high because of a favorable demand to supply ratio and during inactive periods market prices are generally low because of an unfavorable demand to supply ratio.

Markets possess the means to adjust market prices when economic conditions become unbalanced. High market prices tend to restrict demand and bring more properties for sale in the market; low market prices tend to stimulate demand and withdraw properties from the market. Thus the safest cure for high prices is high prices and for low prices the cure is low prices.

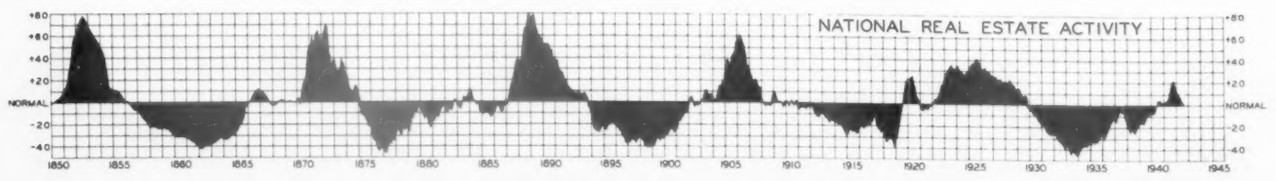
INFLATION AND RENT CONTROL

In our present war emergency markets have lost their ability to adjust price levels. With a national income now running about $104 billion annually and with the supply of available consumable goods constantly shrinking in amount, the pressure to force prices to continually higher levels is a constant threat which price ceilings alone cannot entirely allay. It is believed that the only safe plan to remove the threat of inflation is to freeze all prices and wages, to soften demand by siphoning off some of the national income, and to spread supply by rationing when shortage occurs.

It is reported that since rent control, residential sales have increased materially in Canada with stiffened prices. It is evident that rent control in itself had little to do with it but that a high demand to supply ratio in certain war effort centers was the reason. The same effect will occur in this country.

ELEMENTS OF MARKET PRICE

Market prices can be only those cash sales which are voluntarily made in an actual real estate market. Cash sales are those sales in which the seller receives the equivalent of cash for his property and does not take as part payment other properties, a purchase money mortgage, second mortgage, etc.



A sale is considered voluntarily made when the seller or buyer makes his choice to sell or buy a property under existing market conditions, regardless of those many unrelated circumstances which may have caused him to reach his decision. It is only when a quick sale is vital or the seller has no choice (e. g. a sheriff's sale, etc.), or when a buyer must buy a strategic property regardless of its price, that such sales can be considered involuntarily made.

All sales prices, even when made voluntarily and for cash, are not market prices unless they are made under existing market conditions. They may be above or below the market level. When the sale prices of comparable properties represent a measure of their respective utility under the same market conditions, such sale prices represent market prices. By utility is meant the usefulness determined from location and environment, size, design and construction quality and the extent of accrued depreciation.

MARKET VALUE

The appraisal of MARKET VALUE of any property requires a study and analysis of the market prices of comparable properties actually established in the market. The appraiser must be familiar with market conditions affecting the type of property to be appraised, he should study all sales actually made and, if necessary, examine the properties sold making records for ready reference so that comparisons and adjustments can be made. There are no short-cuts in the appraisal of MARKET VALUE. A competent job requires sales experience, constant investigation, contacts and study to gather reliable information concerning sales and years of appraisal experience to make the proper comparisons of properties with differences in utility.

There are many who feel that MARKET VALUE is the only measure of the worth of any property or thing, or that the price a property will bring in the market (market price) measures its entire economic significance. Others feel that VALUE is of major importance and that MARKET VALUE deserves only minor consideration because it is based on the vagaries of the market.

It should again be mentioned that the definitions and procedure given in these studies are applicable to the field of appraising for commercial purposes which deals with actual markets where properties are built, financed, rented and sold. MARKET VALUE as defined and discussed in the present study represents the meaning of this basic concept of value accepted by all interests actually operating under our economic system of private ownership and freedom of enterprise.

MARKETS FOR LEGAL PURPOSES

Definitions and appraisal procedure by statutes and our courts cover only those properties which come into litigation. The due "process of law" clause, basic in all legal procedure for condemnation, rate making, etc., has added in some degree the influence of justice, normality and fairness which actual markets often do not possess. Therefore, we find in legal procedure such values as Full and True Market Value, Normal Market Value, Fair Market Value, etc., which may be entirely fictional at the time the appraisal is made. One of the most complete and outstanding treatises on appraising for different legal purposes is The Valuation of Property, by Dr. James C. Bonbright.

It is quite unfortunate that the American Institute of Real Estate Appraisers in its terminology manual departs from the accepted usage of MARKET

VALUE and defines it unqualifiedly as a justified and warranted price between a buyer and seller, both of whom are fully informed, intelligent and willing. Of course, such a market is not only non-existent but fantastic. The two foremost appraisers in the country could not qualify as buyer and seller possessing full information under such a definition.

VALUE AND MARKET VALUE

VALUE and MARKET VALUE have no fixed relationship to each other for all types of properties under all market conditions. When the economic forces of supply and demand are in true balance in a sufficient market, MARKET VALUE and VALUE are equal in amount. Only under such conditions can MARKET VALUE be considered a true measure of VALUE and only then can the full VALUES of such properties be considered liquid.

When supply and demand become out of balance, MARKET VALUE may become too great or too low a measure of VALUE, depending upon market conditions existing at the time. It should be noted that when MARKET VALUE is below VALUE, this loss in value, being of a temporary nature, cannot be considered depreciation as defined in Bulletin 2.

The difference between VALUE and MARKET VALUE indicates the liquidity of a property under the market conditions existing at the time. The more highly specialized and individual the use of a property, the less its liquidity under most market conditions due to restricted demand. On the other hand, the more general the use, the greater the liquidity as is the case with small single dwellings and purely investment properties designed for general use. Large pretentious dwellings built mainly to suit individual taste generally can be sold at only a fraction of their value. It is reported that a large residential estate in New York State costing several millions of dollars to build could not be sold or given away because all demand for such a property was destroyed by excessive income taxes. If such excessive taxes on higher bracket incomes become a permanent government policy, such properties will lose their entire VALUE.

The FHA insured loan with its high percentage loans, low interest rate and long amortization period, brought into the market many persons formerly not considered prospects for home ownership. While such an innovation stimulated new residential construction as was its original purpose, it also restricted the demand for older dwellings which could not be financed on the same favorable basis and thereby lowered their MARKET VALUES.

Because these two basic values are so often different in amount, the appraiser should always estimate both VALUE and MARKET VALUE whether the property is a small cottage or a pretentious skyscraper. The appraisal of only one of these values does not give a complete picture of any property which ownership should have. The prospective seller or buyer should know whether the sale price would be above, at or below the real worth of the property appraised. The mortgage banker is vitally concerned with the value of the property as an investment and also with the extent of its liquidity.

R. B. Kissack M.A.I.

APPRAISAL BULLETIN

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Roy Wenzlick
Editor

REAL PROPERTY INCOME

INCOME APPROACH

The method used in estimating VALUE by deducting accrued depreciation from MAXIMUM VALUE, referred to as the cost approach, is only one process by which the appraiser reaches his opinion. However, there cannot be a different opinion of VALUE for any particular property if some other sound procedure is used such as the income approach. Any difference would merely indicate that errors in assumption or calculation were made in either or both methods.

The income approach is perhaps the more logical method because VALUE in concept indicates the value created from use which in turn is measured by income. The income approach to VALUE follows the definition very closely as being that capitalized sum which represents the present worth of all future benefits and returns reasonably expected from the property during its estimated remaining useful life. It is logical that the essence of VALUE is future use. The purchaser of a dwelling is interested only in its future use and enjoyment as a home; all investments are made for future returns. Certainly past cost or past benefits do not create present VALUE.

There are many who scoff at any method which includes forecasts or the estimate of future probabilities, but forget that any capitalization processes necessitate future assumptions. The simple capitalization process of dividing a return by a capitalization rate assumes the continuance of such return forever into the future. While it is realized that nothing man-made is certain and that anything is a possibility, the appraiser must be qualified to reach sound conclusions on future probabilities, based upon his experience and upon his knowledge and analysis of economic conditions and the resulting behavior from social and economic trends.

The steps to be followed in appraising VALUE by the income approach are: (1) to estimate the present annual net income applicable to the real estate; (2) to estimate the annual net income applicable to the real estate from the future use of the property; (3) to estimate the extent of the remaining useful or profitable life of the property; (4) to establish the proper capitalization rates applicable to the locality and type of property appraised; and (5) to calculate the present money equivalent of this annual net return to be received for the determined period in the future.

The first four steps require investigation, study and analysis before a conclusion can be reached, but the last step is usually a simple mathematical calculation. The first step once determined can be used as a base from which the second step can be estimated. Annual net income involves two of the most

important factors in connection with income properties, namely (a) rents and (b) property expenses.

RENTS

Rent is the price of possession and use established between owner and tenant. On account of changing market conditions caused by changing demand to supply ratios, the level of rents changes, rising to high levels in periods of scarcity and to low levels in periods of surplus. Residential rents experience changes to high and low levels in cyclic swings somewhat similar to the activity cycle shown in Bulletin 3 which gives the average of 34 metropolitan cities, although the intensity of change varies for each city, depending upon local conditions. The demand to supply ratio for the use of other types of properties controls their rental levels.

It is, therefore, necessary for the appraiser before he can estimate the present full use income of a property to first determine the market level of rent. The "market rent" measures the use of a property or unit of space in comparison with the use of like and competing properties or units of space in the existing market. A comparison of the utility of properties or rentable units is often quite involved. By utility is meant that usefulness which is controlled (1) by the location and environment of the property; (2) by the size, design, construction quality of the improvements; (3) by the extent of accrued depreciation; and (4) by the services furnished in addition to possession and use.

It has been our experience that a casual examination of properties and the acceptance of schedules of rents and expenses submitted by the owner or agent are not a sufficient basis to estimate full use income. Unbalanced rental schedules in multi-unit properties are a common occurrence and inefficient management is often the cause of improper tenancy and rental schedules below the levels which efficient management could create.

In balancing rental schedules in such multi-unit properties as factory and loft buildings, commercial properties, etc., where the size of unit measurable by the square foot or front foot is the main difference in utility, the process is quite simple. On the other hand in office buildings where in addition to the size of unit, each unit has its own particular design influence, the determination of a balanced schedule is more difficult. The shape of office, its position in reference to exposure, light, ventilation and view, its position in reference to public space and its location as to floor all create an individual design influence which affects rents. The Sheridan-Karkow Formula is a splendid method to find a balanced schedule. This or some equally reliable method should be used by the appraiser before the full use income is determined.

Multiple dwelling unit properties, especially apartments present still further difficulties in balancing schedules because such units not only have variations in size, design and some construction features such as baths, kitchens, etc., but there is no positive measure of size. The room as a measure of size is inadequate because it is a variable itself with no positive provision for partial rooms, halls, closets, alcoves, etc. It is used merely because a more reliable measure has not been developed. The appraiser is compelled to rely more on his knowledge and experience of the rental market with this type of property than with other types, especially when comparisons are made with competing properties.

ENTERPRISE FEATURES

In making comparisons between like and competing types of properties an analysis should be made of the kind and amount of services which are furnished the tenant and included in the rent. Gradually since the turn of the century more and more items of an enterprise nature have been furnished the tenant until today in the hotel type apartment the rent includes payment for nearly every item of household expense. The gross receipts from such properties are not real estate income as the larger part is obtained from enterprise operations.

Real estate rent in its true sense is the price or compensation for the possession and use of a property. The amounts charged for ordinary household furnishings and other household items supplied by the owner are not a proper part of real estate rent. Such charges are income of an enterprise nature and the profits therefrom cannot be considered real estate net income.

The appraiser must determine real estate income and, in every case where it is possible to do so, should segregate the enterprise income, expenses and profits from the total receipts before attempting an appraisal of the real estate. There has been a tendency in appraisal technique to increase the capitalization rate to compensate for the inclusion of profits from enterprise in the total net income, but in our opinion this is an unsound procedure and should not be followed unless necessary.

The ordinary rooming house is purely an enterprise in its operations, even when the operation of the enterprise and the real estate are in single ownership. In most cases the business and real estate are severed and the landlady pays a rent for the real estate. No question arises in the appraisal of such properties because when in single ownership a rental value can be readily estimated from comparable properties. The rent applicable to the real estate runs approximately 30% of gross receipts from rooming house operations.

The operation of a commercial hotel is an enterprise. The appraisal of this type of property becomes quite involved when the hotel enterprise and real estate are in single ownership and when the enterprise income is not segregated from the real estate income. Fortunately, there are many hotel operating companies which rent hotel properties in which cases the appraisal procedure is greatly simplified. When operations and real estate are in single ownership, the appraiser should estimate the rental value of the real estate and proceed with the appraisal on this basis. We have found that real estate rent for rooms averaged about 35% of the gross receipts from room sales in several properties of this type.

The apartment hotel is a glorified rooming house containing many features of the commercial hotel in its operations, besides some other features such as dishes, silverware, etc. Like the rooming house and the commercial hotel the soundest appraisal procedure is to segregate the enterprise features, estimating the income applicable to the real estate and determine value on this basis. The rent applicable to the real estate amounted to about 37% of gross receipts in several properties of this type which we have appraised. The question of services included in the rent is of great importance and the appraiser should decide on a sound method in arriving at an opinion of the values of the real estate of these complex types of properties. The procedure which has been followed will be given in detail when actual appraisals of these types of properties are included in future bulletins.

CONTRACT RENT

Contracts are often made between landlords and tenants for possession and use to continue for limited periods in the future. The rent established by lease, often referred to as contract rent, is of three general types: (1) a fixed rent for a definite number of years by which the landlord and tenant agree on the present and future usefulness of the property, usually for a relatively short period of years; (2) a series of fixed rents generally increasing in amount each for a definite term of years by which the landlord and tenant agree on the future changes in the usefulness of the property; (3) a variable rent, the amount of which depends upon future economic conditions determined by a percentage of the volume of business the tenant will do at the location.

The percentage lease is usually applicable to commercial properties and often specifies a fixed minimum rent and on occasion a fixed maximum rent. As a general rule the foregoing types of leases are for comparatively short terms although in New York City the percentage lease for retail locations is usually made for twenty-one years.

The lease of the land for a long term of years (usually 99 years) involves special problems which will be covered in separate studies of leasehold estates.

While the rights to possession and use of the lessee become a part of the property to be appraised and to a large extent determine its values, the appraiser will often find that the contract rent is above or below the market rent of the property. It is found advisable for the appraiser to first find the "Market Rents" of the property assuming for the moment the leases did not exist and thus determine the full use income under existing market conditions. It has been our practice first to appraise the VALUE of the property on the basis of estimated market rents and afterwards make adjustments for existing leases. In the case of short-term leases with contract rents above or below the estimated market rents, only minor adjustments are necessary. However, with long-term leases where the contract rent varies greatly from the expected full use income in the market, it has been our practice to find separately the loss or gain in value due to the lease. The value created by a favorable lease is not real estate value but depends entirely upon the lease and the financial responsibility of the lessee.

Rent control is of special interest to the appraiser in those cities where rents have been frozen at some former level. In our appraisal procedure we have assumed that frozen rents for the duration of the war have the same effect as a lease which may be unfavorable in comparison with the estimated future level of rents which can be reasonably expected. Under this procedure it is comparatively simple to estimate the loss in value due to frozen rents. We have estimated that frozen rents will last for a period of four years which is our guess as to how much longer the war will last. It is realized that rent control may continue for a great number of years into the postwar period as was the case in some European countries after the first World War.

Of equal importance to the estimate of present full use income is the estimate of average property expenses.

PROPERTY EXPENSES

Property expenses represent all expenditures necessary for the proper operation of a property including management charges, for adequately conserving the property by maintenance and repair and for all fixed charges such as taxes, inspection fees and insurance.

The actual expense for a particular property represents merely the expenditures actually made; however, they may be quite different from the amount which would be estimated for proper operations and adequate maintenance and repair. It has been our experience that statements of actual annual property expenses are often unreliable as representing the amount necessary to properly and adequately operate and maintain the property.

Occasionally it will be found that a property is managed by a rent collector instead of an efficient property manager. The property is found poorly kept and dirty, tenants are dissatisfied, vacancies are higher than the average for its type and rents are below the market. Maintenance and repair are neglected and the property generally has the appearance of "milking." In such cases the appraiser must estimate the expenses which would be necessary for proper operations and maintenance and repair expense adequate for its type.

It is often found that a fee for management is charged on certain properties which is below the amount charged by competent management. In some appraisals we have found that the appraiser thought that an owner living in one of the units could manage the property without charge. To follow such practice is poor appraisal procedure and a management fee should be charged in keeping with the fee charged by competent management in the locality in which the property is situated. Many insurance companies have found after re-possession of many four-family dwellings that competent management was essential and a necessary part of property expenses.

There are several items of expense which change in amount each year or which occur only at several year intervals. In the first class is heating expense which changes yearly in proportion to the number of degree days. The normal number of degree days for the locality should be used and adjustments made above or below the actual expense for heating in any particular year.

There are many items of maintenance and repair which occur only occasionally such as roof replacement, exterior painting, maintenance and replacement of mechanical equipment such as heating plants, gas stoves, refrigerators, etc. It is necessary, therefore, for the appraiser to include as a part of the expenses, reserves for these occasional items or to include these deferred charges in the actual average maintenance and repair expenses.

Little has been done in adopting a standard classification of property expenses. Some progress has been made by the Office Building Owners and Managers Association, but its classification is restricted primarily to office buildings. It is startling to examine the haphazard methods of recording expenses often employed by many of the management companies without classification or grouping. Often they are listed merely as they arise in the operations of the property. It would appear to be of primary importance to management that a logical and standard classification of costs and expenses be adopted so that records would be available and comparisons simplified. To the appraiser it is most essential in order to estimate average annual property expenses.

For more than ten years a standard classification and grouping of property expenses has been made for all properties appraised. In many cases it has been difficult to do this on account of the lack of system employed in recording expenses and the fact that the only worth while classification should be made at the time the expenses occur.

The following table gives the classification and grouping of expenses used.

OPERATING EXPENSE	MAINTENANCE & REPAIR EXPENSE	FIXED EXPENSE
Janitor	General Bldg.	Property Tax
Utilities	Tenants Space	Insurance
Heating & Ventilating	Public Space	Fees
Management	Mechanical Equip.	
Elevator Exp.	Grounds	
Total-Oper. Exp.	Total-M. & R. Exp.	Total-Fixed Exp.

All expenses, including labor, materials, supplies, etc., are included in each classification. The expenses in each class should be reduced to a unit expense on a square foot basis or a room basis whichever is applicable. This facilitates the comparison of expenses between like types of properties. The accumulation of such records will be of immense help to the appraiser in estimating the average or normal property expense of any particular property.

PRESENT FULL USE NET INCOME

The simple process of deducting the normal property expenses from the present full use income gives the present net full use income. This is the most important item in connection with income properties and too much care and thought cannot be given to its proper determination. It represents the maximum return from a property used to its full capacity in the existing market. The loss in this net income due to vacancies or its use less than full capacity is due to existing economic conditions in which supply exceeds demand.

With few exceptions, properties seldom enjoy use to full capacity over a long period of years. At times either the property is vacant or a part of the usable space in multi-unit properties is not in use. This condition is caused either by the construction of an over-supply or by a shrinkage in demand. During the bottom of the recent depression, both causes created a large surplus of space in all types of properties, but the shrinkage of demand was the greater influence. Vacancies in all types of properties vary among the different cities depending upon the rate of population growth, the kind and diversification of employment, the amount of over-building in the preceding peak period, etc. A survey in the City of St. Louis made by the St. Louis Post Office in November 1932 showed a vacancy of 4.6% in single family dwellings, 28.9% in apartment hotels, 13.3% in stores and 21.5% in office buildings. While a large part of the vacancies of all types of dwelling units were absorbed by 1940, office buildings which reached a peak vacancy of 34.9% in 1934 still had a vacancy of 29.5% in 1940.

In practically every city there is insufficient data to calculate an average vacancy percentage for various types of properties over a long period of years. It would appear that the 10% vacancy generally used in appraising has

very little factual basis. The average vacancy that can be reasonably expected during the remaining useful life of a property is distinct for each different type of property and varies among the different cities and is not the same in different neighborhoods in the same city.

The most reliable vacancy data is for office buildings. The average vacancy of office space in the United States from 1925 to 1942 inclusive is 16.5%. It can be argued that during this period the country had the greatest over-building of office space experienced during the twenties, which was followed by the greatest depression ever experienced. In our opinion it is not believed that the appraiser should adopt an arbitrary percentage as his estimate of future loss in full use income because it is common practice but should base his conclusion on his own investigation and study. A percentage above or below the arbitrary 10% would be warranted if the conclusion reached were based on factual data.

It would appear from the incomplete data at hand that single family dwellings enjoy by far the greatest average occupancy over a period of years and apartment hotels, especially the luxury type, have the lowest average occupancy of all dwelling types. We believe this is generally true throughout the country, although uniform average vacancy percentages cannot be arbitrarily used for all cities and for all properties.

Without the information available to estimate the average occupancy of different types of properties during the past twenty years, the appraiser is working under a great disadvantage in attempting to estimate the average occupancy during the coming twenty years. In our opinion it is not the average occupancy but a study of each individual property, its neighborhood, its past records and reasonable expectations for the future that will help him to form a conclusion of future occupancy. For example, while the occupancy of office space in St. Louis was slightly more than 70% in 1940 and has increased during the past two years by the absorption of space by government agencies, the office building situation as a whole does not present a bright picture and indicates that there has been a permanent loss in office space demand since 1929. However, it does not follow that this over-all percentage should be applied to individual properties which have enjoyed (and still enjoy) a much higher occupancy than this city average.

We have been unable to discover upon what information the 10% average future vacancy was adopted or how it became so generally accepted by appraisers. It cannot be substantiated by factual data or by many properties whose past records are available. It must be realized that the use of any average penalizes those properties which are better than the average and favors those properties below the average. It becomes difficult for the appraiser to justify the same percentage deduction for vacancy from full-use income when the property is well built and located in a good stable neighborhood with good rentability and when the property is poorly built and located in a declining neighborhood with poor rentability

From the foregoing brief discussion it will be noted that the determination of the present full-use income, property expenses and average vacancies are estimates and opinions based upon the experience of the appraiser and records of actual market conditions.

The adjustments which the appraiser must make from actual rents and actu-

al property expenses are but briefly outlined. In all cities under rent control the rents of many properties were found out of balance with the rents of competing properties at date of freezing. This condition always exists in open rental markets, especially so in periods of large surplus when the landlord takes what he can get and in periods of scarcity when the tenant pays what he is asked. Likewise, actual property expenses must be adjusted to represent the average expense of a matured property.

Present full use income should be carefully determined; it may be the appraiser's estimate of the future full-use income or the level from which this future level can be estimated.

A. B. Kissack

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REAL ESTATE ANALYSTS INC.

APPRAISAL BULLETIN

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Roy Wenzlick
Editor

CAPITALIZATION PROCESS

FUTURE FULL-USE INCOME

After the present full-use income of a property is estimated, the question arises whether the appraiser is justified in using, under all circumstances, this present level in his estimate of VALUE by the capitalization process. There is a divided opinion among appraisers; some argue that the future is unknown and uncertain even in times not affected by war and that the appraiser must use the present because he has no other definite basis for estimating future trends. At the other extreme, there are some who attempt to estimate in great detail the annual fluctuations of future income and expense based upon assumptions entirely unwarranted from the data at hand.

It is our opinion that both of these positions are untenable. The use of the present level assumes it will be maintained throughout the profitable life of a property and is the equivalent of a forecast to that effect. To require such a forecast when all data available at the time may indicate a future level either above or below the existing level is to confound appraisal theory and to suppress the reasoning and free opinion of the appraiser.

On the other hand, an attempt to forecast in detail the annual movements of income and expense for twenty or more years in the future is to claim clairvoyant powers and to invite ridicule of the entire appraisal theory of VALUE. The more important influences of a social and economic nature which affect the values of real properties can be grouped under three general classes - (a) cyclic scarcity and surplus; (b) decentralization; (c) depreciation.

It is certain that alternating waves of real estate activity and inactivity follow each other in cycles averaging 18 years in length. It is quite probable that they will continue in the same pattern in the future. While anything is possible, it would take overwhelming evidence to prove the contrary. The activity chart (Bulletin 3) shows the average of 34 metropolitan cities which gives the alternating periods of scarcity and surplus. This average change does not represent actual conditions in each city as some cities are above and others below these average swings, although each follows the same pattern.

As previously noted, during active periods occupancy and rents are considerably above normal, sales are active and foreclosures are low and construction is going ahead at an increased rate; during inactive periods, occupancy and rents are below normal, sales are sluggish and foreclosures are high and construction is very slack. The change from one period to another is very slow. Often it is hard to distinguish the trend from one year to the next and many, in periods of scarcity, think the "new era" has arrived and consider the

good times as "normal." Appraisers are inclined to capitalize the peaks with disastrous aftermath. In the inactive periods of large surpluses, despair rides in the saddle and owners seek government relief. The general thought considers only the immense losses which have been suffered from the "normal" peaks when many properties were bought and financed.

In truth, the highs of the peaks and the lows of the valleys are equally abnormal. The appraiser would not be justified in using the high or the low in these two abnormal periods as the future level of rents in appraising by the income approach.

DEPRECIATION AND DECENTRALIZATION

Decentralization is the migration of business or population to more profitable or more desirable localities. Countries, states and cities and sections within them have been subject to this influence since the beginning of civilization. Decentralization is a natural process caused by economic and social conditions which spring from basic human desires.

The centralization of population in urban centers continues just so long as it is profitable for business to create employment in competition with other urban centers. Excess of births over deaths is not sufficient to support healthy city growth. The basic causes which slow down or stop and even reverse this concentration are insufficient transportation, inconvenience to raw materials, restriction of trade territories, inefficient industrial plants, high rents, high labor costs and all other influences which either restrict markets or create unfavorable cost differentials in comparison with competing urban centers.

Within all cities, especially where growth is rapid, shifts in population and social activities are constantly taking place. This decentralization in business and residential districts within all large metropolitan cities presents serious problems of great concern to city governments and all real estate interests. The undesirability of depreciated structures and of congested and obsolete neighborhoods with accompanying blight and creeping slums is a natural process. Rapid transit systems and the automobile are not causal influences but merely provide the medium by which population can gratify a natural desire to migrate from congested and undesirable living conditions. FHA financed small homes are a more recent means of hastening decentralization.

In the past, decentralization has come in spurts following the cyclic building booms in periods of activity, although deterioration and obsolescence is a slow process hardly noticeable from year to year. It is of interest to notice the decentralizing and centralizing effects of the war industrial activities during the past two and one-half years. Recent government releases show that from April 1940 to August 1942 New York State has lost 500,000 of its population; Pennsylvania, 190,000; Oklahoma, 145,000. On the other hand Michigan has gained 310,000; California, 305,000 and Virginia, 170,000. Other states have gained or lost in smaller numbers. It is our belief that a large part of these gains and losses is permanent and will no doubt affect real estate values.

The appraiser who is fully aware of the adverse effects of decentralization and depreciation on rents and values could not assume the levels of property income existing at the time as the future level unless he considered some

inflationary influence to offset the expected decline. At the peak of the cycle in the twenties all influences tended to lower future property income from the income existing at the time. The hindsight of today should not be unduly critical of the appraisals made in that over-optimistic period which lacked appraisal technique and pertinent data that would act as a guide. The worst indictment heard of those heyday appraisals was the certifications of value by unqualified persons for the purpose of justifying predetermined bond issues.

USEFUL LIFE

Modern practice has practically abandoned the process of capitalizing net income as an annuity in perpetuity. It is now generally recognized that real estate is not a permanent investment. Real estate, like the individual, grows old and loses its usefulness, finally reaching a stage where the capacity to earn has diminished to such an extent that income from waning use is insufficient to pay expenses. This stage is the end of usefulness of both the individual and the real estate. The individual is compelled to use his savings or become dependent on relatives or the state while real estate must cut expenses below the level necessary to prevent rapid deterioration and decay. It is quite unfortunate that real estate must experience this death struggle without the release of death and that cyclic booms seem at times to revive some slight economic status. When the end of usefulness in normal periods is reached, real estate is considered to have reached the end of its useful life.

The estimate of the useful life remaining in all types of new and old properties is one of the important functions of the appraiser in the income approach to VALUE. The very complex nature of real estate has prevented the compilation of reliable mortality and life expectancy tables which can be applied to different types of properties of different ages. Each property is almost individual in character with varying environmental influences which give to each its own specific problem. With individuals the actuary in figuring insurance risk can remove those persons with natal weaknesses and those who have developed ailments and diseases, while medical science has almost eliminated the unexpected plagues common in early periods. His problem is quite simple in comparison with that of the appraiser, who is confronted with the original weaknesses of properties in construction, design and fads and who must take into consideration existing neighborhood diseases and the plagues of decentralization and blight.

The appraiser must estimate the remaining useful life for each particular property because it would be unsound to use "average" or "normal" useful lives which have been estimated for new properties of different types. The Bureau of Internal Revenue in Bulletin F, revised 1942, gives the normal useful lives of new properties by types and grades of construction quality, including a large list of many items of machinery and equipment. Designed primarily for figuring depreciation allowances in income tax returns and in estimating book values, the appraiser will find these tables of real value, although they should be used merely as a guide and not applied to all types of new properties. With older properties they are of little value.

In 1936, Real Estate Analysts, Inc., from a field check of 1100 single-family dwellings located in St. Louis, established mortality and life expectancy data with an estimated average life of 63.5 years. From observations, it was estimated that depreciation amounted to 75% at the average age of 55 years. It is now believed that, if an analysis of each property had been

made, it would have been found that the useful lives of many of the properties standing in 1936 had already ended as many of them provided poor and sub-standard living conditions.

The estimate of remaining useful or profitable life of any particular property to be appraised depends upon the property itself, the existing status and environmental influences, and those trends which would affect the probable future status of the property. Properties with original weaknesses in layout, of poor construction quality and with fad or freakish architecture will suffer more rapid depreciation than those without these weaknesses. Neighborhoods with incongruous uses or with incompatible racial and standard of living types and those without proper zoning or deed restrictions, etc., create instability and shorten remaining useful life. Often high class residential districts are materially affected by the infiltration of racial types and those lacking conforming cultural qualities. Properties in business districts where the trend of activity is moving away or in neighborhoods which indicate rapid future deterioration and blight will have short future lives.

We have estimated remaining useful lives for new properties as low as 25 years and as high as 50 years and for older properties of say 20 years, as low as 15 years and as high as 40 years, depending on the conditions surrounding the property appraised. In our opinion, there are no rules of thumb on life expectancy available to the appraiser, and reliance must be placed upon his experience.and judgment.

CAPITALIZATION RATES

The last step in appraising income properties is to establish the capitalization rate and complete the capitalization process. There is no question that the capitalization rate must include all of the elements composing gross interest rates classified as follows: (1) pure interest; (2) element of risk; (3) extent of liquidity; (4) supervision of investment.

Pure interest can be described as the return to capital which would be necessary to attract sufficient capital into the market were there no risk whatever involved in the investment, if the capital so invested could be withdrawn at any time, and if the investment required no supervision. Pure interest varies with the supply and demand for money and credit. The interest on certain types of government bonds approaches pure interest.

All real estate investments contain the element of risk in greater or less degree. The supply of real estate is relatively fixed and slow to react to changing demand, causing at times large surpluses which cannot be used. These adverse economic conditions combined with permanent losses from unforeseen shifts in social activities may cause excessively unstable conditions. Real estate carries nearly the total cost of local government, including all municipal improvements, and is often assessed for special benefit taxes which do not enhance values. It has become an easy target for government experiments in the housing field, rent control, etc.

Practically all types of real property contain the element of non-liquidity to a greater or less degree, necessitated by markets of negotiation, inability to liquidate part of the investment, and comparatively high sales cost. The small single dwelling has the highest liquidity, and generally special-use properties have the lowest liquidity.

Exclusive of property management, which is a property expense, the owner must safeguard his investment by reinvesting the annual return of capital (depreciation), by checking items of income and expense, and by regular examination of the property to determine its condition and the efficiency of management.

The fifth element affecting capitalization rates is the extent of enterprise features. The simplest types of properties are those without any enterprise features, where rent covers solely possession and use and the only property expenses are an allowance for management, maintenance and repair and fixed expenses as occur in single dwellings used by a single family or as a rooming house, some commercial properties, hotel properties rented by operating companies, factory buildings, etc. The capitalization rates for such types of properties, where rent is entirely a real estate income and does not include payment for services, should be lower than for those types where rent includes a multiplicity of service and enterprise features in addition to possession and use found in the more complex types of properties. This conclusion is logical because the percent of profits on most enterprise features in the market is higher than the return to real estate in the simpler types of properties.

As stated in Bulletin 4, it is considered good practice to segregate as far as possible the income and expense of items of service and personal property and appraise them as an enterprise, and the profits therefrom should not be included as net income applicable to the real estate. However, with some properties such as the ordinary apartment, office building, etc., the enterprise features are a much smaller part of total rent and it is not feasible to segregate them in finding real estate rent. In such cases a capitalization rate should be used slightly higher than the rate for the simpler types. With those properties where enterprise features form a large proportion of gross income, it is not considered good practice to raise the capitalization rate to compensate for them.

It is quite impossible to specify definite capitalization rates for different types of properties in different localities. Each property must be studied separately and all factors affecting capitalization rates must be weighed before the rate is determined. In the last analysis, the capitalization rate to be used depends upon the judgment of the appraiser, which is controlled by his experience in the appraisal of many types of properties.

Generally those properties where ample funds are available, which present less risk, possess high liquidity, require little management, and contain no enterprise features, would warrant a low capitalization rate. The single family dwelling stands preeminently in this class. Some claim that retail outlets in 100% stable locations with financially strong tenancy leased for long periods also command a low rate. On the other hand, many specialty properties which attract funds only at high rates, contain high risk, have low liquidity, and require greater management costs, would warrant high capitalization rates.

In our opinion, such factors as location and environment, size, design, and construction quality of the improvements, accrued depreciation and future neighborhood trends do not have a controlling influence on capitalization rates when proper consideration is given to each factor in the income approach to VALUE. The proper determination of present full use income, of the level of future full use income, of the future level of matured property expenses,

of the expected loss in full use income due to vacancies, and of the length of remaining useful life compensates for all such influences.

Amenities are often spoken of as those satisfactions or benefits other than monetary which attach to ownership or which arise from architectural excellence, scenic beauty or social environment. Some go so far as to include the qualities of a happy home life as the amenities of a house. The satisfaction and pride of ownership are the primary factors in creating a market for its purchase; architectural excellence, scenic beauty and social environment are reflected in the monetary value of the improvements and the land. A house is the habitation of home life and would be appraised at the same VALUE were it vacant or if the home life within it were found to be extremely happy or utterly miserable.

The capitalization process is not complex for most types of properties. It has been our practice to make the improvements residual to the land in the allocation of future net income between the land and the improvements. While the land and the improvements thereon are merged into a single property in law and in fact, the land and its relative location are fundamental and give value to the entire property. The improvements are more of a secondary nature and their value is dependent on the land and its relative location. It is highly improper to appraise a property by the summation of separate appraisals of the land and the improvements because the property, both land and improvements, must be appraised for a single use which represents the best use of the land.

The determination of the value of the land for its highest and best use is best found by comparison with other land comparable in size, location and environment. The vast majority of sites will be found to be developed to their best use, but often there is found a definite under-development, especially in those neighborhoods undergoing a transition to a more profitable use. In such cases the time at which the higher development would be needed and prove profitable is an important consideration. Asking prices by owners of comparable properties who are anticipating a higher use or some prior sales price are not reliable guides in establishing the existing value of the land under consideration. It should be again stressed as axiomatic that if the land is appraised at a value higher than the existing improvements would justify such improvements have only a salvage value, or they must be remodeled to conform to the higher land use.

After the VALUE of the land is determined it is a simple matter to determine the return applicable to the land by taking a direct percentage (capitalization rate of the land) of the land value so determined if, in the opinion of the appraiser, the land would have the same value at the end of the useful life of the improvements. If it were assumed that the land would have a much lower value at the end of the useful life, the annual return applicable to the land could be adjusted to provide for such loss.

The net return applicable to the improvements represents the difference between the future net income and the calculated return applicable to the land. The value of the improvements is the present worth of the annual net return applicable to the improvements to be received during the estimated remaining useful life of the property, discounted at the capitalization rate which, in the opinion of the appraiser, seems justified.

It is unnecessary for the appraiser to be able to derive the mathematical

equation for present worth. Tables are available in published form and their application is quite simple. The present worth of the improvements so calculated is a capital sum which the level annual return applicable to the improvements will restore during the remaining useful life and pay the designated capitalization rate. This restoration of capital representing the value of the improvements is in effect its future depreciation. It is quite evident that no deduction from the return applicable to the improvements is necessary to provide for depreciation. Interest and the amortization of mortgage loans, if any, are not property expenses and should receive no consideration in the appraisal process.

FINAL CONCLUSION OF VALUE

By adding the values of the land and improvements so determined from a single use, the VALUE of the property is established by the income process. In previous bulletins two other methods of estimating this same VALUE have been briefly discussed: (1) by reproduction cost less accrued depreciation; (2) by comparison in the markets of exchange. Each of the three methods requires many estimates, assumptions and opinions of the appraiser with almost certainty that lack of supporting data and errors in assumptions have crept into his calculations, with the result that his conclusion of VALUE by each of these methods is different in amount. In our experience it would be an accident if this condition were not so, regardless of care and study exercised in each of these methods. It illustrates the unreliability of using a single approach to VALUE.

The different estimates of VALUE by different approaches can be considered only tentative opinions until further investigation and study would warrant corrections and adjustments and lead to one supported conclusion.

Human nature being what it is, there should be no surprise that appraisers are classed as the highs or the lows, as optimistic or pessimistic, with their appraisals generally reflecting these attitudes. Such chronic attitudes are unfortunate and tend to discredit the entire appraisal profession. When such types of appraisers rely mainly on intuition and experience and often when only one approach to VALUE is used, the spread between the high and the low is exceptionally large.

The appraiser should have no interest in the property he is appraising and his fee should be reasonable and not contingent upon the appraisal report which he makes. It is better if he does not know the amount of loan desired when appraising for purposes of financing or know of any other objective which may unconsciously influence his opinions. Often experience inclines the appraiser to prejudge the property he is to appraise, which makes it somewhat difficult to let his judgment follow a disinterested and unhampered analysis of all data pertaining to the property.

The appraiser should use the three measures of VALUE whenever it is possible to do so. In many cases lack of supporting data compels the appraiser to rely on two of the measures, and occasionally his final conclusion must depend on only one measure.

From the brief discussions given in this and prior bulletins, it is indicated that the use of a property creates its VALUE and not the cost to produce it nor the price to acquire it. Because rent is a direct measure of use, the determination of VALUE from income should be employed in every case where it

is possible to do so. When properties are owner-occupied or with specialty properties, including those properties of a public or semi-public nature, rents should be estimated and VALUE determined from income. Since it is more fundamental in concept than either reproduction cost less accrued depreciation or the sale price which would be established in the market, every effort should be made to include the income approach as one of the measures of VALUE. It has been our experience that the income approach provides the only real check on accrued depreciation used in the cost approach, which is so difficult to measure from observation alone, especially when it results from adverse environmental influences or from excess capacity, individual taste, etc.

There has long been in existence a quick capitalization procedure where VALUE is determined by multiplying the full use income by a certain factor, which is equivalent to capitalizing the gross income as a perpetuity at a definite rate of return. That such a rule of thumb is entirely unsound in theory and liable to give an entirely erroneous result is self-evident. Many buyers have been induced to purchase properties by this crude method applied by salesmen who did not know. Being a little better than a guess, it should only be used to approximate value by a qualified appraiser who is fully aware of its limitations.

A. B. Kissack

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APPRAISAL BULLETIN 6

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Roy Wenzlick
Editor

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DEPRECIATION FROM INACCESSIBILITY

CAPACITY AND VALUE

It should be kept clear that real estate possesses only the capacity for use and that VALUE is not an inherent quality. In the last analysis, the price of acquisition or the cost of producing the improvements represent only the cost of securing or creating capacity available for use and VALUE depends solely on the extent to which man can use such capacity.

This truth is often overlooked and many persons mistake the cost of capacity for VALUE. Assessed values are generally based more upon the cost of capacity than upon VALUE and courts and juries are inclined to make awards more upon what the property cost than upon the extent of its use. The function of the appraiser is to differentiate between capacity and the extent of its use, although the latent thought exists in the minds of many qualified appraisers and mortgagees that, because a house cost a certain sum to build, that sum must represent the VALUE of the improvements.

It has often been illustrated how the deserted properties in an abandoned mining town still retain their capacity for use but have no VALUES because they are inaccessible for use. Another illustration of this same influence is the mythical office building in the desert. When properties are entirely inaccessible as in these illustrations, their entire VALUE is lost, although they may not suffer from any other influence of depreciation at the time. Of course, these extremes are rarely encountered by the appraiser, but inaccessibility in much less degree is a very common influence of depreciation with many new and old properties.

Perhaps no other factor has as much influence on VALUE as accessibility for use. This location influence controls to a great extent the value of land and may cause loss in value (depreciation) of the improvements of many properties for all types of use. Other influences of depreciation are given in Bulletin 2.

In this study we have selected from our files an appraisal, made in 1936, of a small residential property, which illustrates the loss in VALUE (depreciation) from inaccessibility and also from undesirable plot layout. The exact location of the property and the ownership have been concealed by fictitious information and names; however, all other data upon which the appraisal is based represent actual conditions. While the purpose for which the appraisal is to be used is immaterial, the circumstances surrounding it were unusual in that the owner died shortly after he built the property and provided in his will that an option be granted a friend to purchase the property at its MARKET VALUE to be appraised by our company, the option to be exercised within six

months after his death.

DESCRIPTION OF PROPERTY

The property is located in St. Louis County about twenty miles from the St. Louis downtown business district and lies between the New Post Road and the Missouri River in a sparsely settled section of the county. The small development in this district during recent years consists of summer homes and a few year round homes. The site, an irregular narrow strip of land averaging 110 feet in width and 638 feet in depth, has a frontage of 89 feet on New Post Road and a frontage on the river of 130 feet and contains 1.59 acres.

The land lies level with New Post Road for about 500 feet to the river bluffs and then drops rapidly downward to the river fifty feet below. Such utilities as gas, water and sewers are not available to the property.

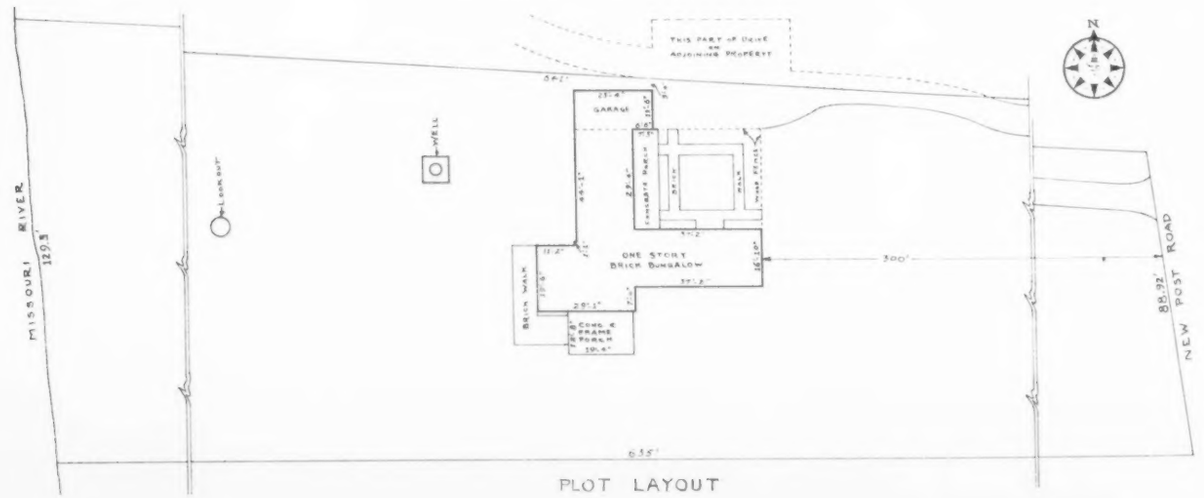
About three hundred feet back from New Post Road a one story brick bungalow-type dwelling without basement was completed in 1936 with a ground area of 2190 square feet and with the shape and contour shown on the accompanying sketch. The bungalow is exceptionally well constructed. Such features as solid 13" brick walls, 14" waterproofed concrete foundation, a four-foot air space below first floor concreted for protection against termites, complete insulation, slate roof, steel casement windows, marble window sills, hardwood floors, 1-3/4" doors, the latest in forced warm air heating and ventilating equipment, etc., indicate the high quality of construction. Other construction features consist of a small septic tank, a 325-foot well with electric pump, storage tank and water softener equipment.

The bungalow contains a large living room, four bedrooms, four baths with shower stalls, kitchenette and utility room and heated space for one automobile. The general architectural design and treatment are very attractive and in keeping with the high quality construction. The layout of space is good but does not follow conventional lines; two of the bedrooms are small and no dining room or dinette space is included in the layout; heated space for only one car is provided.

APPRAISAL

On Work Sheet I are given all data concerning the land and its environment; on Work Sheet II are shown the construction details. The value of the land and the reproduction cost of the improvements are given on these two work

(continued on page 4)



PLOT LAYOUT

APPRAISAL WORK SHEET - I
LAND

ADDRESS OF PROPERTY: New Post Road — APPRAISAL MADE: ------
OWNER: John Doe — AS AT: 9-Dec.-36
MADE FOR: Option Holder — MADE: 9-Dec.-36
ADDRESS: ------

SPECIFIC LOCATION

MUNICIPALITY: none — COUNTY: St. Louis — STATE: Missouri
INCLUDED IN: St. Louis — METROPOLITAN AREA
DISTRICT: ----- — CB
SUBDIVISION: -----
DESCRIPTION: an irregularly shaped tract of land with a frontage of 89 feet on the west line of New Post Road and extending westwardly an average of 638 feet to the Missouri River. (see sketch)

RELATIVE LOCATION

ACCESSIBILITY AND CONVENIENCES		ENVIRONMENT AND TRENDS	
DIRECT ACCESS	New Post Road	SURROUNDING PROPERTIES	farm land, summer dwellings for year round homes
TO BOULEVARD	country road	DISTRICT BUILT UP	5 %
TO SUBWAY	-----	ESTIMATED AGES	new to 10 years
TO ELEVATED	-----	SURROUNDING USES	same
TO STREET CARS	10 miles	DETRIMENTAL USE	none
TO BUS	4 miles	PRINCIPAL FOREIGN POPULATION	none
TO PARK	-----	RACIAL INFLUENCE	white
TO PLAYGROUND	-----	% NEGRO POPULATION	none
TO CHURCHES CATHOLIC	4 miles	% HOME OWNERS	100%
PROTESTANT	3 miles	$ OF L CLASSIFICATION	above average
JEWISH	-----	REMARKS	-----
TO SCHOOLS GRADE	½ mile	ZONING RESTRICTIONS	none
HIGH	4 miles	DISTRICT STATUS	IMPROVING [X] STATIONARY [ ] RETROGRADING [ ]
PAROCHIAL	4 miles	TRANSITION TO AND TRENDS	summer homes on river
TO DOWNTOWN DISTRICT	20 miles	ENCROACHMENTS	none
TO BUYING CENTER	6 miles		
TO NEIGHBORHOOD STORES	-----		

CONDITION AND FACILITIES

WIDTH 88.92' frontage; 129.3' on rear — MAIN STREET macadam road
DEPTH 641' and 635' — SIDE STREET -----
AREA 1.59 acres — SHAPE irregular — OTHER STREETS -----
GRADE front 500' of lot — ALLEY no
BELOW GRADE rear estimated 50' — SIDEWALKS no
TOPOGRAPHY see notes — SEWERS no
GEOLOGICAL FORMATION soil, rocky at rear — WATER no - use well on property
TREES many at rear of lot — GAS no
BUILDING LINE 300 feet — ELECTRICITY yes
REMARKS ----- — SWITCHING no
RIPARIAN RIGHTS none

APPRAISAL

APPRAISED VALUE LAND (WORTH) — 1.59 acres @ $710 per acre — $ 1,125
OR — SQUARE FEET OF AREA @ — PER FT — $
MARKET VARIABLE — ADDITION [ ] DEDUCTION [ ] NONE [ ] — $
APPRAISED MARKET VALUE — $

CODE: E-6000, EA-6000 TO AVERAGE, A-AVERAGE, AP-AVERAGE TO POOR, P-POOR

APPRAISAL WORK SHEET - II
CONSTRUCTION COST

ADDRESS OF PROPERTY: New Post Road — APPRAISAL MADE AS AT: 9-Dec.-36
MADE FOR: Option Holder — MADE: 9-Dec.-36

MINOR IMPROVEMENTS ON LAND

WALKS	brick	600 sq ft @ 10¢	60	
DRIVES	torpedo top over macadam	2600 sq ft @ 10¢	260	
FENCES	3'-6" wood	60 l.f. @ 30¢	20	
SODDING	-----	sq yds	---	
WALLS	none		---	
GARDENS	none		---	
SHRUBS	few		---	
ORCHARDS	none		---	
MISCELLANEOUS	small stone look-out		60	$ 400

MAIN IMPROVEMENT — PROPOSED [ ]

DESCRIPTION: A one story without basement brick bungalow containing living room, kitchenette, four bedrooms, four bath rooms with shower stalls, utility room and one-car attached garage.
TYPE: English-style bungalow — AGE: 6 MOS.

SPECIFICATIONS

BSMT	none	BLDG FRAME	-----	SEPTIC TK	yes	
RENT NO	none	FOUNDNS	14"poured conc.	ROUGH PLBG	modern	
STORIES	1	BSMT FL	-----	PUBLIC FIXT	modern	
STORES	-----	EXT WALLS	12"hd.brk.ptd.	TYPE HEAT	forced wm.air	
OFFICES	-----	ROOF	slate	HEATG PP	Gen. Electric	
GARAGE	attch.	METAL WK	copper	MECH STKR	-----	
DW UNITS	1	INT PARTNS	plaster	OIL BURN	Gen. Electric	
ROOMS	6	SPEC WALLS	-----	GAS FIRED	-----	
EFF RMS	-------	INT TRIM	v.p.painted	WATER HTR	auto.Gen.Elec.	
KITCHENS	-----	DOORS	6 panel col.1-3/4"	AIR COND	Gen. Electric	830
KITCHENETTES	1	FLOORS	7/8" clear oak	INSULN	4"rock wool	150
BATHS	4	SPEC FLS	-----	SPRINKLER	none	
LAVATORIES	1	TILE	shower stls.4 bths	SKYLIGHTS	-----	
HEATG PLTS	1	LATH	plas.beamed L.R.	ELEV	-----	
HEIGHTS		HOME EQ	0.	FIRE ESC	-----	
BSMT		ELECT WK	modern	REFRIG	-----	
MAIN		ELECT FIXT	0.	GAS STOVES	-----	
ROOF		SCREENS	copper	BEDS	-----	
BLDG	15 feet	W STRIP	-----	CAB BFMS	Monel metal	
BLDG AREA	2190 sq ft	AWNINGS	-----	FRONT PCH	7'3"x 29'4"	80
		STOREPRFNTS	-----	REAR PCH	12'8"x 19'4"	260

REPRODUCTION COSTS

MAIN BLDG COST	CUBIC CONTENT 32,810	CU FT @ 28.5 ¢	9350	
" " "	" area 2,190	SQ FT @ 4.27		$10,670
SEPARATE GARAGE	NO CARS one	UTILITIES WATER [X] SEWER [X] LIGHT [X] HEAT [X]		
	WALLS 9" brk. ROOF slate FLOOR conc.	SPKL DOORS 0 head @		$ -----
	COST OF GARAGE AREA ------ HT ----- CUBIC CONTENT	main bldg. CU FT @ ¢		$
OTHER IMPROVEMENTS	well, tank, water softener, etc.			750
CONSTRUCTION COST NEW				$11,820
ARCHITECT'S FEES, FINANCING, INTEREST, OTHER COSTS	8.7%			$ 1,030
REPRODUCTION COST NEW				$12,850

CODE: E-6000, EA-6000 TO AVERAGE, A-AVERAGE, AP-AVERAGE TO POOR, P-POOR

APPRAISAL WORK SHEET - III
APPRAISAL: NON INCOME BASIS

ADDRESS OF PROPERTY: New Post Road — APPRAISAL MADE AS AT: 9-Dec.-36
MADE FOR: Option Holder — MADE: 9-Dec.-36

ECONOMIC CONDITIONS AFFECTING VALUE

TYPE OF CONSTRUCTION: brick with frame interior — GRADE OF CONSTRUCTION FOR TYPE: very good
GRADE OF CONDITION FOR AGE: very good (SEE LIST OF NECESSARY REPAIRS)
STRUCTURAL FAULT: none discernible
REMODELING AND MODERNIZATION: none — DATE
OBSOLESCENT ARCHITECTURAL STYLE AND DESIGN: none
EXCESS IN LAYOUT AND CAPACITY: none
OBSOLESCENT EQUIPMENT: none
SITE LAYOUT - COVERAGE: see sketch
UNDESIRABLE FEATURES OF LIVABILITY: none
UNSALABLE WORKS IN DESIGN: ---
RELATION OF PRESENT USE TO ZONED USE: not zoned — CONFORMING [ ] NON CONFORMING [ ]
RELATION OF PRESENT IMPROVEMENTS TO SURROUNDING PROPERTIES: OVER IMPROVED [X] CONFORMING [ ] UNDER IMPROVED [ ]
RELATION OF CLASS OF IMPROVEMENTS TO SURROUNDING STANDARD OF LIVING: ABOVE [X] CONFORMING [ ] BELOW [ ]
IMPROVEMENTS INADEQUATE TO JUSTIFY LAND VALUE DETERMINED FROM HIGHER USE: no
ASSESSED VALUE: LAND $ — IMPROVEMENTS $ not assessed — TOTAL $ — TAXES % 36
OCCUPANCY: OWNER [X] TENANT [ ] VACANT [ ] — RENTS: estimated rent $85 per month

APPRAISAL

PRESENT VALUE OF LAND - SHEET I	$ 1,125
REPRODUCTION COST NEW OF IMPROVEMENTS - SHEET II	$ 12,850
TOTAL REPRODUCTION VALUE (MAXIMUM VALUE)	$ 13,975

NECESSARY REPAIRS		ACCRUED DEPRECIATION		
ITEM	AMOUNT	ITEM	PERCENT	AMOUNT
none	$	NORMAL WEAR AND TEAR		$
		EXCESSIVE DETERIORATION FOR AGE		
		STRUCTURAL FAULT - SEE NOTES		
		PHYSICAL DETERIORATION		$ ----
		OBSOLETE BUILDING		
		OBSOLETE EQUIPMENT		
		EXCESS CAPACITY		
		OBSOLESCENCE		$ -----
		REPLACED IMPROVEMENTS	10	1285
		UNSALABLE LIVABILITY		
		UNSALABLE FEATURES		
		UNDESIRABLE DESIGN		$ 1,285
		INADEQUACY	20	2570
		INCONGRUOUS WITH PROPERTIES AND USES		
		INCOMPATIBLE WITH STANDARD OF LIVING		
TOTAL NECESSARY REPAIRS	$ none	NON CONFORMITY TO ENVIRONMENT	30	$ 2,570
TOTAL LOSS ACCRUED DEPRECIATION				$ 3,855
LOSS FROM INADEQUATE LAND USE				$ ----
LOSS FROM UNFAVORABLE LEASE [ ] FROM EXCESSIVE TAXES [ ]				$ -----
TOTAL LOSS IN WORTH			30	$ 3,855
TOTAL GAIN IN WORTH	[ ] HISTORICAL	[ ] FAVORABLE LEASE	[ ] FAVORABLE TAXES	$ -----

APPRAISED VALUE (PRESENT WORTH)	$ 10,120
MARKET VARIABLE — ADDITION [ ] DEDUCTION [X] NONE [ ]	$ 920
MARKET VALUE AFTER REPAIRS	$
NECESSARY REPAIRS	$ none
APPRAISED MARKET VALUE	$ 9,200

CODE: E-6000, EA-6000 TO AVERAGE, A-AVERAGE, AP-AVERAGE TO POOR, P-POOR

APPRAISAL WORK SHEET - IV
APPRAISAL: INCOME BASIS

ADDRESS OF PROPERTY: New Post Road — APPRAISAL MADE AS AT: 9-Dec.-36
MADE FOR: Option Holder — MADE: 9-Dec.-36

TOTAL RENTS INCLUDE THE FOLLOWING ITEMS IN ADDITION TO POSSESSION AND OCCUPANCY

COLD WATER	[ ]	HEAT	[ ]
HOT WATER	[ ]	AIR CONDITIONING	[ ]
LOCKER SPACE	[ ]	JANITOR SERVICE	[ ]
USE OF LAUNDRY SPACE	[ ]	MECHANICAL REFRIGERATION	[ ]
ELECTRICITY	[ ]	GAS STOVE	[ ]
GAS	[ ]	RESIDENT MANAGER	[ ]
FURNITURE AND FURNISHINGS	[ ]		
LINENS, DISHES, SILVERWARE	[ ]		
MAID SERVICE	[ ]		
LAUNDRY SERVICE	[ ]		
ELEVATOR OPERATORS	[ ]		
DOORMAN	[ ]		

ESTIMATED [ ] PRESENT RENTALS AFTER DEDUCTING ENTERPRISE FEATURES

STORES AND LOFT SPACE	OFFICES	DWELLING UNITS	GARAGE SPACE
$	$	Est. rent $ 85	$
MONTHLY RENT $	MONTHLY RENT $	MONTHLY RENT $ 85	MONTHLY RENT $
ANNUAL RENT $	ANNUAL RENT $	ANNUAL RENT $1,020	ANNUAL RENT $
ANNUAL VACANCY $	ANNUAL VACANCY $	ANNUAL VACANCY $	ANNUAL VACANCY $

ASSUMED BASIS OF APPRAISAL FROM FUTURE NET INCOME

ESTIMATED PERCENTAGE OF PRESENT RENTS TO FUTURE LEVEL: STORES ____ OFFICES ____ DW UNITS 100 GARAGES ____
ESTIMATED PERCENTAGE OF AVERAGE FUTURE OCCUPANCY: STORES ____ OFFICES ____ DW UNITS 95 GARAGES ____
ESTIMATED REMAINING ECONOMIC LIVES: STORES ____ OFFICES ____ DW UNITS 40 GARAGES ____
ESTIMATED PERIOD UNTIL PRES RENTS RETURN TO EST FUT LEVEL: STORES ____ OFFICES ____ DW UNITS -- GARAGES ____
ESTIMATED RATES OF RETURN ON - IMPROVEMENTS: 6 % LAND 5 % LEASEHOLD ---- %

AVERAGE EXPENSE OF MATURED PROPERTY			PRESENT ANNUAL RENT		% FUTURE LEVEL	% OCCUPANCY EFFECTIVE OF INCOME	
P 100 JANITOR	$ ---		STORES				$
P 200 UTILITIES	---		OFFICES				
P 300 MAINTENANCE	---		DWELLINGS	1020	100.	95	974
P 400 MANAGEMENT	45		GARAGES				
P 500 ELEVATORS	---						
P 600 OPERATING EXPENSE	$	45	TOTAL EFFECTIVE GROSS ANNUAL INCOME				$ 974
P 700 GENERAL EXP	$ 25		AVERAGE ANNUAL PROPERTY EXPENSE				$ 320
P 800 TENANTS EXP	60		ANNUAL NET RETURN BEFORE INTEREST, DEPRECIATION & AMORTIZATION				
P 900 MISC. EXP	40		NET RETURN TO LAND				$ 56
P 1000 MAIN & REPR EXPENSE	$	125	NET RETURN TO IMPS				$ 598
Est. P 1100 TAXES	$ 82		RATE OF LOSS 56 ÷ .05				$ 1,125
P 1200 INSURANCE	65		AMOUNT OF IMPS 598 x 15.05				$ 8,995
P 1300 FEES	---		VALUE LAND AND IMPROVEMENTS				$ 10,120
P 1400 FIXED EXPENSE	$	150	LOSS LAND PRESENT TO FUTURE VALUE		YEARS		$ ---
TOTAL PROPERTY EXPENSE	$	320	LOSS LAND UNDER NEXT YEARS				$ ---

APPRAISED VALUE (PRESENT WORTH)	$ 10,120
MARKET VARIABLE — ADDITION [ ] DEDUCTION [X] NONE [ ]	$ 920
MARKET VALUE AFTER REPAIRS	$
NECESSARY REPAIRS (SEE SHEET III)	$ none
APPRAISED MARKET VALUE	$ 9,200

CODE: E-6000, EA-6000 TO AVERAGE, A-AVERAGE, AP-AVERAGE TO POOR, P-POOR

sheets respectively. The sum of these two values gives the MAXIMUM VALUE of the property shown on Work Sheet III. The property is found to be in exceptionally good condition. No structural faults or marring cracks are discernible and, in our opinion, there is no loss in value due to physical deterioration or obsolescence.

On Work Sheet III deductions have been made for depreciation resulting from (a) misplaced improvements; and (b) inaccessibility.

From the sketch it will be noticed that the north line of the building is built within 3 feet of the north property line; that the drive serves both the property appraised and the property to the north and that space for parking cars is provided on the property to the north. All of these undesirable features result from the improvements being misplaced on the lot. In fact, in this locality of comparatively cheap land, the width of the tract is too narrow for the type of improvements built. For these reasons the property is less desirable with a resulting loss in value. A deduction of $1,285, or 10%, is made.

While the location of the property affords a haven of quiet and restfulness away from congestion and noise of the city, an outlook of scenic beauty and a splendid view of the river and the country beyond, and the improvements possess architectural excellence and features of comfortable living, the property is inconvenient in its accessibility to downtown St. Louis, mass transportation, stores, churches, schools and other social activities. Improvements of this quality of construction are incompatible with a locality more suited for use as a summer home than for year round use. A ratio of 11 to 1 between the values of improvements and land indicated a definite overimprovement. A deduction of $2,570, or 20%, has been made representing the loss in VALUE resulting from inaccessibility.

The sum of these two items, $3,855 or 30%, represents the total depreciation or the total permanent loss in value which, deducted from the MAXIMUM VALUE, gives the estimated VALUE of the property of $10,120 as of December 12, 1936. (see Work Sheet III.)

The nature of the assignment requires the appraiser to determine that MARKET VALUE or price which the property would bring if it were exposed for sale in the market. After a thorough search no sales of comparable properties were found for estimating the MARKET VALUE of the property by comparison. We had information that residential properties of this general class were not selling at their appraised VALUE in the St. Louis territory due to temporarily depressed market conditions and that there existed an average 10% negative differential between VALUE and MARKET VALUE. Applying this average gave an appraised MARKET VALUE of $9,200. This amount approximates that opinion evolved by a mental process based upon a knowledge of general market conditions and intuition so commonly used by appraisers in the past.

It will be noticed that VALUE has been estimated from only the cost approach and, as previously stated, a single approach is often conducive to excessive error. An attempt has been made to estimate VALUE from the income approach, although no actual rental data were available and the market rent of the property must be estimated. Work Sheet IV gives the procedure used in estimating VALUE from income.

A. B. Kissack

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